



October 30-31, 2026

CURRENT DISEASE MANAGEMENT OF IBD - BETWEEN GUIDELINES AND ART

Symposium 245
BRUSSELS, BELGIUM



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CME
CREDITS

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10 credit hours (CME) have been awarded by the European Union of Medical Specialists (UEMS).

PREFACE

Dear colleagues and friends,

It is with great enthusiasm and genuine pleasure that we welcome you to the Symposium 245: **“Current Disease Management of IBD – Between Guidelines and Art”**.

In shaping this meeting, our vision was clear: To shine a spotlight on the most essential and dynamic aspects of inflammatory bowel disease care today. To achieve this, each session follows a deliberately structured and engaging format. We begin with a case-based introduction to ground the topic in real-world clinical practice, followed by a concise review of the applicable guideline to anchor our discussion in evidence-based medicine. From there, we will delve into two key questions for each thematic area - questions chosen to challenge, to inspire, and to encourage us to think beyond established boundaries. Finally, every session culminates in a dedicated panel discussion, offering the opportunity for vibrant, in-depth exchange between experts and participants alike.

Our program spans a broad and stimulating range of topics: diagnostics, first-line treatment in Crohn's disease, refractory IBD, extraintestinal manifestations, IBD monitoring, perianal disease, nutrition in Crohn's disease, and malignancy in IBD. Each has been selected with the goal of sparking meaningful dialogue, bridging clinical guidelines with the nuances of individualized patient care, and ultimately advancing the quality of IBD management.

We are privileged to be joined by an outstanding international faculty whose expertise and perspectives guarantee insightful discussions and enriching debate. Beyond the science, this symposium also offers a wonderful opportunity to reconnect with colleagues, forge new collaborations, and strengthen our community dedicated to improving the lives of people with IBD.

We very much look forward to welcoming you in Brussels and to sharing an inspiring and productive meeting together.

Raja Atreya

Geert D´Haens

Britta Siegmund

Bram Verstockt

CURRENT DISEASE MANAGEMENT OF IBD - BETWEEN GUIDELINES AND ART

October 30-31, 2026

Scientific Organization:

Raja N. Atreya, Erlangen (Germany)
Geert D´Haens, Amsterdam
(The Netherlands)
Britta Siegmund, Berlin (Germany)
Bram Verstockt, Leuven (Belgium)

Start of Registration:

Thursday, October 29, 2026
17:00 - 20:00 h
at the congress office

Congress Venue:

SQUARE Brussels
Meeting & Convention Centre
Mont des Arts 1
1000 Brussels
Belgium

For admission to scientific events your name badge should be clearly visible.

Accompanying persons are not permitted during the conference at any time.

FRIDAY, OCTOBER 30, 2026

9:00 Welcome

SESSION I

Evolving IBD diagnostics: From guideline to gut intelligence

Chairs *James Lindsay, London; Joana Torres, Lisbon*

09:10 Case-based introduction
Anna-Teresa D´Hooghe, Leuven

09:20 Guidelines in focus: What's new in IBD diagnostics?
Torsten Kucharzik, Lüneburg

09:35 Predictive tools: Combining biomarkers, imaging and risk models
Sophie Restellini, Geneva

09:50 Beyond the scope: Capsule endoscopy and the next diagnostic frontier
Uri Kopylov, Tel Aviv

10:05 Panel discussion
Anna-Teresa D´Hooghe, Leuven; Torsten Kucharzik, Lüneburg; Sophie Restellini, Geneva; Uri Kopylov, Tel Aviv

10:30 **Coffee break with ePoster session**

SESSION II

Crohn's disease: First-line treatment

Chair *Iris Dotan, Petah Tikva*

11:00 Case-based introduction
Lotte Oldenburg, Amsterdam

11:10 Guidelines in focus: Current recommendations
Tim Raine, Cambridge

11:20 First-line approach: Medical vs surgical strategies
Filip Baert, Roeselare

11:35	First-line approach: Which drug first? <i>Nurulamin Noor, Cambridge</i>
11:50	Panel discussion <i>Lotte Oldenburg, Amsterdam; Tim Raine, Cambridge; Filip Baert, Roeselare; Nurulamin Noor, Cambridge</i>
12:20	Lunch break with ePoster session

SESSION III

Refractory IBD: A therapeutic challenge

Chair	<i>Raja Atreya, Erlangen</i>
13:45	Case-based introduction <i>Anne Strik, Amsterdam</i>
13:55	Guidelines in focus: Current recommendations <i>Tommaso Parigi, Milan</i>
14:05	Acute severe ulcerative colitis: Optimal management <i>Millie D. Long, Chapel Hill</i>
14:20	Refractory Crohn's disease: Current treatment options <i>James Lindsay, London</i>
14:35	Panel discussion <i>Anne Strik, Amsterdam; Tommaso Parigi, Milan; Millie D. Long, Chapel Hill; James Lindsay, London</i>
15:00	Coffee break with ePoster session

FRIDAY, OCTOBER 30, 2026

SESSION IV

Extra-intestinal manifestations in IBD: Challenges and risks

Chairs	<i>Millie D. Long, Chapel Hill; Torsten Kucharzik, Lüneburg</i>
15:30	Case-based introduction <i>Fotios Fousekis, Erlangen</i>
15:40	Guidelines in focus: Current recommendations <i>Triana Lobatón Ortega, Ghent</i>
15:50	Bridging gut and heart: Cardiovascular complications in IBD <i>Julien Kirchgesner, Paris</i>
16:05	Medical therapies for joint, skin and eye: How effective are they? <i>Joana Torres, Lisbon</i>
16:20	Panel discussion <i>Fotios Fousekis, Erlangen; Triana Lobatón Ortega, Ghent; Julien Kirchgesner, Paris; Joana Torres, Lisbon</i>

FALK FOUNDATION RESEARCH GRANT

16:50	Presentation of the Research Project
17:05	Closing remarks

SATURDAY, OCTOBER 31, 2026

SESSION V

IBD monitoring 2.0: From guidelines to real-time care

Chairs *Bram Verstockt, Leuven; Sophie Restellini, Geneva*

09:00 Case-based introduction
Elisabeth Eggermont, Leuven

09:10 Guidelines in focus: What's new in IBD monitoring?
Henit Yanai, Petah Tikva

09:25 When the phone rings: Managing the suspected flare
Sarah Brödel, Leuven

09:40 Seeing without scoping: The rise of non-invasive and intelligent monitoring
Christian Maaser, Lüneburg

09:55 Panel discussion
Sarah Brödel, Leuven; Elisabeth Eggermont, Leuven; Henit Yanai, Petah Tikva; Christian Maaser, Lüneburg

10:20 **Coffee break with ePoster session**

SESSION VI

Perianal disease in IBD

Chairs *Christian Maaser, Lüneburg; Britta Siegmund, Berlin*

10:50 **Presentation of Poster Awards**

11:10 Case-based introduction
Lea-Maxie Haag, Berlin

11:20 Comprehensive fistula management: Classification and approach
Shaji Sebastian, Hull

11:35 Comprehensive fistula management: The surgeon's view and guidelines
E. Joline de Groof, The Hague

SATURDAY, OCTOBER 31, 2026

12:00	Panel discussion <i>E. Joline de Groof, The Hague, Lea-Maxie Haag, Berlin; Shaji Sebastian, Hull</i>
12:30	Lunch break with ePoster session
SESSION VII	
Nutrition in Crohn's disease: Emerging therapeutic role	
Chairs	<i>Iris Dotan, Petah Tikva; E. Joline de Groof, The Hague</i>
14:00	Case-based introduction <i>Lihi Godny, Petah Tikva</i>
14:10	Guidelines in focus: Current recommendations <i>João Sabino, Leuven</i>
14:20	Case-based discussion <i>Lihi Godny, Petah Tikva; João Sabino, Leuven.</i>
14:35	Panel discussion <i>Iris Dotan, Petah Tikva; E. Joline de Groof, The Hague; Lihi Godny, Petah Tikva; Joao Sabino, Leuven</i>
15:00	Coffee break with ePoster session

SESSION VIII

Malignancy in IBD

Chairs	<i>Torsten Kucharzik, Lüneburg; Britta Siegmund, Berlin</i>
15:30	Case-based introduction <i>Lulia Al-Hillawi, Oxford</i>
15:40	Guidelines in focus: Current recommendations <i>Hannah Gordon, Oxford</i>
15:50	Dysplasia in IBD: Detection and practical management <i>Marietta Iacucci, Cork</i>
16:05	IBD patients with prior malignancy: Practical management <i>Iris Dotan, Petah Tikva</i>
16:20	Panel discussion <i>Lulia Al-Hillawi, Oxford; Hannah Gordon, Oxford; Marietta Iacucci, Cork; Iris Dotan, Petah Tikva</i>
16:50	Closing remarks

FALK FOUNDATION RESEARCH GRANT



The international **Falk Foundation Research Grant** supports early-career scientists with an MD or PhD who are planning an innovative, translational two-year research project in gastroenterology or hepatology. The grant is awarded every two years.

Your benefits as a grant awardee:

- Receive funding of **EUR 50,000** for your awarded project
- Advance your research
- Gain recognition and visibility in the scientific community

Apply and become part of our vision: Improving patients' lives by advancing digestive and metabolic medicine!

The next application round will open at the end of 2027, with eligibility expanded to additional countries compared to the first call in 2026.

Details regarding application requirements and eligibility can be found here:



FALK FOUNDATION RESEARCH GRANT 2026

The international Falk Foundation Research Grant will be awarded for the 1st time by the Falk Foundation e.V. on the occasion of Symposium 245 in Brussels in October 2026. The Falk Foundation Research Grant supports innovative, translational research projects led by early-career scientists in the fields of gastroenterology and hepatology. In the first call for applications in 2026, applicants based in the following countries are included: Germany, Austria, Switzerland, Belgium, the Netherlands, Luxembourg, the United Kingdom, and Ireland. The grant provides EUR 50,000 in funding for the winning research project.

RESEARCH GRANT EVALUATION COMMITTEE:

The evaluation committee for the Falk Foundation Research Grant consists of members of the Falk Foundation Faculties – specialists in the fields of gastroenterology and hepatology.

LIST OF SPEAKERS, MODERATORS AND SCIENTIFIC ORGANIZERS

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POSTER SESSION

ePosters will be displayed on our screens from October 30-31, 2026. We kindly ask the authors to be present during coffee and lunch breaks on both days to discuss their work.

POSTER AWARDS

Prizes of up to EUR 3.000, along with coverage of travel expenses, will be awarded for the best posters.

Winners will be invited to give a short presentation (2-5 minutes) of their poster during the award ceremony.

CONFLICTS OF INTEREST

Members of the scientific committee declare the following potential conflicts of interest:

Raja Atreya: Abbvie, Abivax, Cabaletta, Gut Inc. Johnson & Johnson, Lilly, MSD, Takeda, Alfasigma

Britta Siegmund: Abbvie, Abivax, AltruBio, Boehringer Ingelheim, Bristol Myers Squibb, Dr. Falk Pharma, Endpoint Health, Eli Lilly, Galapagos, Janssen, Johnson & Johnson, Materia Prima, MSD, Pfizer, Takeda, Wedbush Securities, Alfasigma, CED Service GmbH, MD Education, TrlxBio

Bram Verstockt: Abbvie, Celltrion, Pfizer, Sanofi, Nxera, Takeda, Agomab, Alfasigma, Alimentiv, Anaptys Bio, Astrazeneca, BenevolentAI, Biora Therapeutics, Biogen, Bristol Myers Squibb, Celltrion, Eli Lilly, Dr. Falk Pharma, Galapagos

Geert D´Haens: Abbvie, Abivax, Agomab, Alimentiv, Astrazeneca, Biora, Bristol Meiers Squibb, Boehringer Ingelheim, Cabaletta, Celltrion, Dova Health, Equillum, Ferring, Eli Lilly, Galapagos, Falk, Glaxo Smith Kline, Index Pharmaceuticals, Johnson and Johnson, Mage Biologics, Merck, Mirador, MRM Health, Odyssey, Onco3R, Pfizer, Prometheus biosciences, Prometheus laboratories, Procise diagnostics, Protagonist, Sanofi, Setpoint, Shattuck, Spyre, Takeda, Tillotts, UCB, Zip Bio.

REGISTRATION



You can register for the event via our homepage:

www.falkfoundation.org

Registration is only possible online.

You will receive an automatic confirmation of registration by e-mail.

Please transfer the congress fee to the bank account listed in the e-mail within two weeks.

CONGRESS FEES

Scientific Program of Symposium 245

EUR 300

Students (copy of student ID required)

EUR 150

The congress fees include:

- Pre-Opening and Welcome on Thursday, October 29, 2026
- Refreshments during coffee breaks
- Lunch on Friday, October 30 and Saturday, October 31, 2026
- A copy of the final program

CONGRESS OFFICE AND REGISTRATION

Opening Hours:

Thursday, October 29, 2026

17:00 – 20:00 h

Friday, October 30, 2026

08:00 – 17:00 h

Saturday, October 31, 2026

08:30 – 17:00 h

The Falk Foundation will take pictures during the meeting. Additionally, parts of the meeting might be recorded. By participating all attendees consent and agree with the recording and the photo shoots.

ARRIVAL

SQUARE Brussels

Meeting & Convention Centre
Mont des Arts 1
1000 Brussels
Belgium

Public Transport

The Central Station of Brussels is a short walk across the Mont-des-Arts public gardens. All main tram, bus, metro and train lines converge here, as well as the fast train from Brussels International Airport. Train routes to every part of Belgium run from the same station which includes the cities of Antwerp, Brugge, Charleroi, Gent, Mons and Liège.

1. Metro lines 1 and 5, tram lines 38, 63, 65, 86
2. Bus lines 29, 48, 66, 71, 86, N06, N08, N09, N10, N11
3. Bus lines 48 and 95
4. Bus lines 38, 71, N06, N08, N09, N10, N11, N12
5. Trams 92 and 93

Car

There are two public car parks with over 1700 parking spaces. Both car parks are accessible 24h and both have recharging facilities for electric cars.

Parking Albertine is the closest car park and is situated underneath SQUARE with direct access to the venue from the inside. For direct access from the car park, please go to level -3 and follow the directions to SQUARE. This route provides direct elevator access. A short walk away is the Grand Place car park which is conveniently placed midway between SQUARE and the UNESCO world Heritage site of the Grand Place.

1. Parking Albertine #1 – Place de la Justice 16, 1000 Brussels
2. Parking Albertine #2 – Rue des Sols 3, Brussels

Plane

Brussels Airport (BRU) is a speedy 17 minutes by train to the Central Station. At peak times, 6 trains run every hour and from/to the Central Station, which is only three minutes walk to SQUARE. A taxi will take you to the venue in about 30 minutes.

POSTER ABSTRACTS

1. Prevalence and clinical characteristics of metabolic dysfunction-associated steatotic liver disease in patients with inflammatory bowel disease: A cross-sectional study
L. Abenavoli, G. Scarlata, M. Gambardella, A. Loberto, R. Spagnuolo (Catanzaro, IT)
2. Outcome of joint inflammatory bowel disease (IBD) and obstetrics clinic in East Kent Hospital NHS Trust
B. Abreu (Margate, GB)
3. Multimodal management of perianal fistulas in Crohn's disease: The experience of a referral center
C. Antoci, F. Di Giorgio, D. Brinch, P. Melatti, M. Saladino, S. Muscarella, V. Calvaruso, V. Di Marco, P. Venturelli, G. Cocorullo, M. Cappello (Palermo, IT)
4. Persistence of second-line biological therapies in patients with inflammatory bowel disease: The experience of a tertiary referral centre
C. Antoci, L. Amato, F. Di Giorgio, S. Gammino, P. Melatti, I. Salerno, R. Ajovalasit, L. Di Prima, E. Bracciana, S. Scalia, C. Celsa, M. Cappello (Palermo, IT)
5. Hepcidin as a reliable tool for prompt iron deficiency anemia screening and therapies in IBD: Pilot study data
A. Bozenkova, A. Pukitis, V. Mokricka (Riga, LV)
6. Beyond classical extraintestinal manifestations: A decade of change in the systemic burden of inflammatory bowel disease
C. Atodiressei, A. Jucan, G. Sarbu, C. Mihai, I. Mihai, M. Dranga, O. Nedelciuc, C. Cijevschi Prelipcean, A. Pinzariu, C. Mihai (Iasi, RO)
7. Positive quantiferon test results in patients with inflammatory bowel disease affected by older age
S. Bahtiyar, M. Basaranoglu, G. Basaranoglu, C. Davutoglu, M. Bilgic (Istanbul, TR)
8. Pathways to improve intestinal inflammation regulation in pediatric inflammatory bowel diseases
O. Belei, L. Olariu, R. Folescu, R. Folescu, B. Belei, O. Marginean (Timisoara, RO)
9. Appropriate screening strategy and timely referral in suspected pIBD: Impact on diagnostic delay and severity at presentation
F. Borgiani, M. Brusco, E. Franceschini, M. Lionetti, S. Gatti (Ancona, IT)
10. Endoscopic outcomes associated with anti-TNF and non-anti-TNF biologics for post-operative recurrence in Crohn's disease: A retrospective single-center study
D. Brinch, R. Nonni, M. Saladino, E. Giangreco (Ragusa, Caltanissetta, IT)
11. The psychological burden of inflammatory bowel disease: Clinical predictors of anxiety and depression
E. Broide, T. Rainis, L. Cohen Mendel, T. Shalem, A. Eindor-Abarbanel, V. Richter (Zerifin, Haifa, IL)
12. Hydroethanolic extract of *Cereus jamacaru* attenuates DSS-induced experimental colitis
A. Centulio, N. Da Costa Melo, J. Garcia Garcia, A. Ruiz Malagon, M. Rodriguez Sojo, M. Rodriguez Sanchez, J. Galvez, A. Rodriguez Nogales, G. Bernardo Guerra, S. Zucolotto Langassner, D. De Souza Araujo (Chieti, IT; Natal, Santa Cruz, BR; Granada, ES)

13. Beyond the guidelines: Multidisciplinary decision-making in a complicated twin pregnancy in a woman with Crohn's disease
J. Ciepal, M. Gawron-Kiszka, M. Modrzejewski, A. Wikarek, L. Szwaczka, J. Musialik (Katowice, PL)
14. Bone mineral density at patients with inflammatory bowel disease
C. Deliu, O. Chirea, D. Neagoe, A. Genunche (Bals, Craiova, RO)
15. Sacroiliac joint inflammation in patients with inflammatory bowel disease
I.C. Deliu, A. Genunche, D. Neagoe, O. Chirea (Bals, Craiova, RO)
16. Treatment Persistence Across First-, Second-, and Third-Line Advanced Therapies in Inflammatory Bowel Disease: A Multicentre Real-World Study
R. Drago, G. Santacroce, C. Antoci, G. La Rosa, I. Zammarchi, M. Lenti, A. Gilotto, L. Bertani, G. Massetti, C. Russo, C. Franco, A. Todeschini, M. Cassarino, F. De Vita, A. Lo Bello, A. Viola, D. Scalvini, F. Lepore, F. Morda, N. Aronico, C. Mengoli, M. Delliponti, A. Anderloni, A. Variola, W. Fries, D. Ribaldone, C. Ricci, M. Cappello, A. Di Sabatino (Pavia, Palermo, Brescia, Turin, Pontedera, Messina, Negrar di Valpolicella, IT)
17. Budesonide MMX for immune checkpoint inhibitor-induced colitis: Rapid clinical response in a multicentre real-world cohort
L. Gadaleta, F. Sottotetti, A. Premoli, K. Vjero, F. Biagi, E. Santagostino, G. Chessa, G. Civitarese, P. Pedrazzoli, S. Chiellino, A. Di Sabatino, L. Locati, M. Lenti (Pavia, IT)
18. Characterization of mucosa-associated microbiota in ulcerative colitis: Toward microbiota-guided prognosis and therapy
J. Galvez, J. Garcia-Garcia, P. Diez-Echave, A. Ortiz-Sanchez, M. Martinez-Tirado, S. Benito-Palma, E. Redondo-Cerezo, F. Garcia, R. Moron, M. del Mar Rodriguez, A. Rodriguez-Nogales (Granada, ES)
19. Gut microbiota as a determinant of infliximab response: Evidence from a humanised mouse model of DSS-induced colitis
M. Garcia Mansilla, A. Lista, C. Ayala Mosqueda, M. Rodriguez Sojo, M. Rodriguez Sanchez, J. Garcia, L. Gbati, J. Galvez, A. Ruiz Malagon, A. Rodriguez Nogales (Granada, ES)
20. Bridging 1H-NMR metabolomic analysis with clinical practice in idiopathic inflammatory bowel diseases
M. Gazouli (Athens, GR)
21. LC-MS metabolomic profiling identifies bioactive metabolites in *Limosilactobacillus fermentum* CECT5716 extracellular vesicles that promote intestinal barrier repair and immune regulation through TLR4-dependent macrophage polarization
L. Gbati, J. Molina Tijeras, L. Lopez Escanez, M. Rodriguez Sojo, J. Garcia Garcia, T. Vezza, L. Hidalgo Garcia, A. Ruiz Malagon, J. Galvez Peralta, A. Rodriguez Nogales, M. Rodriguez Cabezas (Granada, ES)
22. Relationships between severity of extraintestinal manifestations in inflammatory bowel disease, disease activity and remission maintenance therapy of IBD
A. Genunche-Dumitrescu, C.D. Neagoe, C. Badea, C. Deliu, A. Badea (Craiova, Bals, RO)
23. NFATc3 orchestrates T cell-mediated colitis via Treg dysregulation
K. Gerlach, D. Radtke, F. Beberich-Siebelt, B. Weigmann (Erlangen, Würzburg, DE)
24. Determinants of anti-TNF alpha treatment outcomes in Crohn's disease and ulcerative colitis: A single-center pilot study
C. Gizzi, C. Soldaini, S. Camera, F. De Filippo, I. Fricano, A. Santonicola, P. Iovino, C. Ciacci (Salerno, IT)

25. Wrong turn in Montreal: How SRUS steered L1 Crohn's disease into L3 territory
A. Habibovic, N. Dizdarevic, M. Basic-Denjagic (Tuzla, BA)
26. Bridging gastroenterology and dentistry: Oral mucosa lesions and symptoms in patients with inflammatory bowel disease
I. Hryhorchuk, R. Sydorchuk, L. Sydorchuk, P. Kyfiak, A. Sydorchuk, O. Khomko, I. Sydorchuk, O. Plehutsa (Chernivtsi, UA; Neu-Ulm, Siegen, DE)
27. Immunophenotype of CD15/138/CD4 cells in tissue material from patients with ulcerative colitis and Crohn's disease
K. Jakubowska, K. Bobel, M. Koda, I. Backiel, L. Kanczuga-Koda (Bialystok, PL)
28. Radiological colitis does not equal IBD: Implications of steroid prescribing in hospitalised patients with acute diarrhoea
S. Janarthanan, P. Loganathan, P. Amoako-Tawiah, K. Patel, T. Khan, I. Khan, H. DeGrove, Z. Mazhar, B. Cooper (Basildon, GB)
29. Interpretation and clinical impact of multiplex PCR gastrointestinal panel testing in hospitalized IBD patients: A Serbian tertiary-center cohort
Z. Jovicic, N. Pekic, O. Latinovic Bosnjak, T. Jocic, N. Janjic, M. Ruzic, D. Seckovic Rosic, M. Vranjes, A. Pastornacki (Novi Sad, RS)
30. Exploring the role of human endogenous retroviruses (HERVs) in ulcerative colitis: Expression patterns and impact on therapeutic response
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1. Prevalence and clinical characteristics of metabolic dysfunction-associated steatotic liver disease in patients with inflammatory bowel disease: A cross-sectional study

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Introduction: Metabolic dysfunction-associated steatotic liver disease (MASLD) has emerged as the most common chronic liver disorder and is increasingly recognized in patients with inflammatory bowel disease (IBD). Shared pathogenic mechanisms, including chronic systemic inflammation, gut microbiota alterations, and metabolic abnormalities, may contribute to the coexistence of these conditions. However, the burden of MASLD among individuals with IBD has not been fully characterized. This study aimed to investigate the prevalence of ultrasound-defined MASLD and to describe its metabolic and clinical profile in a cohort of patients with IBD.

Methods: We retrospectively evaluated 272 consecutive Italian patients with Crohn's disease or ulcerative colitis followed at the Renato Dulbecco Teaching Hospital of Catanzaro, Italy, between January 2021 and December 2023. MASLD was diagnosed according to current international criteria requiring hepatic steatosis in the presence of cardiometabolic risk factors. Demographic characteristics, anthropometric measurements, clinical data, and laboratory parameters were collected and compared between groups. Statistical analyses were performed with significance set at $p < 0.05$.

Results: Among the 272 enrolled patients with IBD, ultrasound detected hepatic steatosis was compatible with NAFLD in 6% of cases and MASLD in 18%. The study population was predominantly female (80%), with a mean age of 46 ± 16 years and ulcerative colitis representing the most frequent diagnosis (65%). Compared with patients classified as having NAFLD, those with MASLD were significantly older (53 ± 13 vs. 43 ± 15 years, $p = 0.020$) and exhibited a less favorable metabolic profile, including higher body mass index (27 ± 5 vs. 23 ± 1 kg/m², $p < 0.001$), waist circumference (101 ± 11 vs. 86 ± 1 cm, $p < 0.001$), triglycerides (121 ± 55 vs. 81 ± 17 mg/dL, $p = 0.001$), fasting glucose (94 ± 23 vs. 83 ± 8 mg/dL, $p = 0.019$), fasting insulin (12 ± 9 vs. 7 ± 2 mg/dL, $p = 0.001$), and HOMA-IR (3 ± 2 vs. 1.5 ± 0.45 , $p = 0.002$), together with lower HDL cholesterol levels ($p = 0.031$). Type 2 diabetes mellitus ($p = 0.045$) and hypertension ($p = 0.012$) were significantly more common in the MASLD group. Patients with MASLD also displayed greater IBD severity, with higher Harvey-Bradshaw and Full Mayo scores (both $p = 0.003$) and a higher frequency of previous surgery ($p = 0.009$). No significant differences were observed in therapy or inflammatory biomarkers between groups.

In age-adjusted bivariate logistic regression, serum triglyceride concentration emerged as an independent factor associated with MASLD onset (OR = 1.033, 95% CI: 1.007–1.059; $p = 0.012$).

Discussion/Conclusion: MASLD represents a frequent metabolic comorbidity in patients with IBD and appears to be closely linked to adverse cardiometabolic features and a more complex disease course. Routine evaluation for hepatic steatosis and metabolic risk factors should be considered in the comprehensive management of IBD patients.

2. Outcome of joint inflammatory bowel disease (IBD) and obstetrics clinic in East Kent Hospital NHS Trust

Beatriz Abreu (Margate, GB)

Introduction: IBD affects 2–3% of women in reproductive age group. In pregnancy, women have concerns over continue maintenance medications leading to discontinuation, noncompliance, and possible IBD flare. This has potential Obstetric risks such as miscarriage, preterm birth, Small for Gestational Age (SGA), and increased rate of intervention such as caesarean-section (Wolloff et al., 2021). IBD nurses find pregnancy flare challenging to manage without input from Obstetricians. Hence a joint IBD Obstetric clinic was started in QEOM Hospital in 2023 to provide joint holistic care for pregnant mothers with IBD. The outcome of the pregnancy including women feedback was analysed prospectively.

Methods: Women who were pregnant and identified to have IBD were referred to the joint Obstetric IBD clinic which happened twice a month. All women are seen jointly there and a plan of care is made jointly, including disease management, flare plans and follow-up care. A database on Excel was used to analyse the outcome of pregnancies. A questionnaire was created where patients can comment and make suggestions.

Results: From January 2023 to June 2026, 42 pregnant women had care in the joint IBD clinic and 38 women delivered. Almost 58% had diagnosis of Ulcerative colitis (UC) and 42% had Crohn's Disease (CD). Approximately 37% were on biologics and all of them continued this into third trimester. Nearly one third (44%) had a flare in the antenatal period needing treatment with steroids, 5ASA both oral or rectal or diet (Table 1).

Approximately 40% of them delivered vaginally, 18 women had emergency c-section for various reasons including failure to progress and fetal distress. 8% (3/38) were small for gestational age and nearly 11% were delivered preterm. Postpartum flare was diagnosed in 18% of which 4 had flare during pregnancy (Table 2).

Women expressed that they benefited from the joint approach, felt confident with care and management plan made jointly for the delivery and initiation of treatment. The main request was to extend to other sites of the trust in order to improve access due to transport issues.

Discussion/Conclusion: Our preliminary study from the IBD Obstetric joint clinic had demonstrated that this is a feasible service. Nearly 48% of East Kent pregnant mothers had IBD flare, which was promptly identified and appropriately managed. Pregnancy intervention such as Caesarean section was comparable to that with non IBD women. The preterm birth rate and growth restriction was comparable to other pregnant mothers. The neonatal outcome was comparable with no adverse events on neonatal mortality.

Although our study is small the initial analysis suggest that it is feasible and safe to deliver a joint IBD service with Obstetricians and IBD specialist nurse. This also allowed IBD nurses to improve knowledge and confidence when advising outside of the joint clinic. This service is the first of this kind in the Kent area and we aim to perform a bigger study.

3. Multimodal management of perianal fistulas in Crohn's disease: The experience of a referral center

Chiara Antoci (Palermo, IT), **Francesca Maria Di Giorgio** (Palermo, IT), **Daniele Brinch** (Palermo, IT), **Piera Melatti** (Palermo, IT), **Marica Saladino** (Palermo, IT), **Stefano Muscarella** (Palermo, IT), **Vincenza Calvaruso** (Palermo, IT), **Vito Di Marco** (Palermo, IT), **Paolina Venturelli** (Palermo, IT), **Gianfranco Cocorullo** (Palermo, IT), **Maria Cappello** (Palermo, IT)

Introduction: Perianal fistulas are a common complication of Crohn's disease (CD). The aim of this study is to evaluate the effectiveness of perianal disease management in patients with CD searching for correlations between patients' clinical-demographic characteristics, medical therapy, surgical treatment, and the outcome "perianal fistula closure"

Methods: We carried out a retrospective-prospective study on consecutive subjects with CD and history of perianal fistulas coming for follow-up visits in a dedicated clinic in our tertiary referral center. Demographic and clinical data, interventions and outcomes were registered.

Results: 98 patients with CD and history of perianal fistulas were recruited. All of them were treated with a multidisciplinary approach by gastroenterologists, a dedicated surgeon and a radiologist. 60 were males (61.22%) and 38 females (38.77%) with a mean age of 43.4 years; familial predisposition for IBD was present in 33.67% of cases. There were 44 (44.89%) smokers and 27 (27.55%) ex-smokers. Extraintestinal manifestations were reported in 41.83% of cases. At the diagnosis of CD, the mean age was 30.12 years. Duration of intestinal disease was more than 10 years in 57.14% of cases. 21/98 patients had simple perianal fistulas, 77/98 complex perianal fistulas. No significant difference was found between clinical-demographic data and fistula closure. 96.94% of patients were treated with biologics and 88% underwent surgical treatment (seton placement and/or fistulectomy). A marginal significant difference was found in the relationship between the number of surgical procedures and perianal fistula closure ($p = 0.07$). There was at least one recurrence in 63.26% of cases, and in 62.24% multiple surgical procedures

were required. Infliximab treated patients obtained complete fistula closure in 50% of cases (7/14); adalimumab in 65.7% of cases (23/35); vedolizumab in 40% (4/10); ustekinumab in 27.8% (5/12). Adalimumab induces a higher and faster rate of fistula closure than other biologic drugs ($p < 0.006$). At the time of last observation fistula closure was achieved in 50.64% of patients.

Discussion/Conclusion: Our study confirms, in agreement with the literature data, that the management of perianal fistulas in CD, despite new medical therapies and a multidisciplinary approach, is still a challenge. Multicenter studies with larger cohorts and longer follow-up are required to evaluate the impact of new non anti-TNF treatments.

4. Persistence of second-line biological therapies in patients with inflammatory bowel disease: The experience of a tertiary referral centre

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Introduction: Biologics and small molecules are increasingly used in inflammatory bowel diseases (IBD). However, the real-world data on their usage patterns and sequencing are still limited as well as the impact of treatment sequence on outcomes. The aim of this study was to evaluate the treatment persistence for different lines of biological drugs in two samples of patients, one suffering from Crohn's disease (CD) and the other from ulcerative colitis (UC), refractory to conventional therapy.

Methods: This retrospective-prospective real-world study included 228 consecutive IBD patients followed in our IBD tertiary referral center from January 2018 to May 2024. Demographic and clinical data were registered. The different sequencing of therapies for each patient was described using Sankey diagrams. Treatment persistence was evaluated through Kaplan-Meier curves. Hazard Ratios (HRs) have been calculated to compare the probability of persistence between different treatment lines. Patients for whom it was not possible to reconstruct the sequence of biological treatments, patients whose treatment has been stopped for reasons unrelated to efficacy and safety and patients who received a non-IBD dosage or indication were excluded.

Results: 228 IBD patients; 122 CD (Mean age 51.5, range 21–84) and 106 UC (Mean age 54.9, range 18–86) were enrolled. In CD the second and third lines of treatment compared to the first line have the highest level of persistence, 96 (HR = 2,6759; 95% CI: 1,7803–4,0221) and 64 (HR = 4,0229; 95% CI: 2,0228–8,0006) months respectively. Vedolizumab had the highest persistence in the first and third line. In UC the lines with a higher median of persistence are the second and third lines, 40 (95% CI: 15,750–61,000) and 39 (95% CI: 14,000–90,750) months respectively.

The medians of persistence are greater for vedolizumab in all lines. Data on ustekinumab and tofacitinib need further observation.

Discussion/Conclusion: Our study suggests that second-line biologics may offer benefits in terms of therapeutic persistence, likely due to improved efficacy and tolerability. These results encourage the use of second-line drugs earlier, to ensure sustained remission and potentially change the disease course.

5. Hepcidin as a reliable tool for prompt iron deficiency anemia screening and therapies in IBD: Pilot study data

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Introduction: Inflammatory bowel diseases (IBD) involve chronic inflammation that confounds conventional iron deficiency anemia (IDA) biomarkers, complicating accurate diagnosis and timely therapeutic intervention.

Methods: This study included 105 colonoscopy patients with no history of oral or intravenous iron use within 6 months prior to screening. Based on endoscopic findings, patients were stratified into 3 groups: population control with normal endoscopic mucosa (control), IBD remission group (IBD-R) with Mayo endoscopic score 0-1 in ulcerative colitis patients (UC) and SES-CD 0-3 in Crohn's disease patients (CD); acute IBD group (IBD-A) with Mayo endoscopic score 2-3 in UC and SES-CD ≥ 4 in CD. Level of hepcidin was analysed from blood tests.

Kruskal-Wallis test was used to find statistically significant differences and Spearman's correlation test to find statistically significant correlations.

Results: Patients mean age was 41.96 ± 15.71 SD, where 47.6% ($n = 50$) were men. 22.9% ($n = 24$) were in control group with mean age 49.92 ± 16.15 SD, 25.0% ($n = 6$) were men with median hepcidin level 6.20 (IQR 9); 30.5% ($n = 32$) in IBD-R – mean age 37.16 ± 13.35 SD, 40.6% ($n = 13$) men, median hepcidin level 4.23 (IQR 7); 46.7% ($n = 49$) in IBD-A – mean age 41.20 ± 15.71 SD, 63.3% ($n = 31$) men, median hepcidin level 3.00 (IQR 5). No significant differences were observed in hepcidin levels across the three groups (Kruskal-Wallis test, $H = 3.27$, $p = 0.195$).

There was no statistically significant correlation between hepcidin and hemoglobin levels in control group ($r[24] = 0.192$; $p = 0.368$) and IBD-R group ($r[32] = 0.129$; $p = 0.481$), whereas a significant correlation was found in acute IBD-A group ($r[49] = 0.321$; $p = 0.024$). All groups demonstrated a statistically significant correlation between hepcidin and ferritin levels: control ($r[24] = 0.419$; $p = 0.041$); IBD-R ($r[32] = 0.637$; $p < 0.001$); IBD-A ($r[49] = 0.402$; $p = 0.004$).

A statistically significant correlation between hepcidin and transferrin saturation levels was observed in all groups: control ($r[23] = 0.428$; $p = 0.041$); IBD-R ($r[20] = 0.613$; $p = 0.004$); IBD-A ($r[39] = 0.395$; $p = 0.013$).

Discussion/Conclusion: Our findings validate hepcidin as a reliable tool for IBD inflammatory interference, facilitating prompt diagnosis and correct IDA treatment initiation.

6. Beyond classical extraintestinal manifestations: A decade of change in the systemic burden of inflammatory bowel disease

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Introduction: Extraintestinal manifestations (EIMs) contribute substantially to morbidity and impaired quality of life in inflammatory bowel disease (IBD). Their reported prevalence varies according to the definitions applied and populations studied. Although the systemic burden of IBD extends beyond classical EIMs, temporal changes in non-classical manifestations remain insufficiently characterised. We compared two IBD cohorts hospitalised ten years apart.

Methods: This retrospective, single-centre observational study included adults with confirmed Crohn's disease (CD) or ulcerative colitis (UC) hospitalised at a Romanian tertiary gastroenterology referral centre in 2014 (n = 240) and 2024 (n = 232). Demographic, clinical, treatment and EIM data were retrieved from hospital records. Manifestations were classified within the broader ECCO 2024 framework. Cardiovascular conditions were analysed separately and excluded from the total EIM count.

Results: The proportion of patients with CD increased from 31.2% to 40.5% (p = 0.045), while age and sex distributions remained comparable. Overall EIM prevalence increased from 35.4% (85/240) to 44.4% (103/232; p = 0.046). Neither classical (8.3% vs. 12.1%; p = 0.234) nor non-classical EIM prevalence (32.9% vs. 38.4%; p = 0.255) changed significantly when analysed separately. Peripheral arthropathy (5.8% vs. 6.5%) and iron deficiency anaemia (17.9% vs. 23.3%) were the most frequent classical and non-classical manifestations, respectively. Primary sclerosing cholangitis/autoimmune hepatitis increased from 0% to 2.6% (p = 0.014), metabolic dysfunction-associated steatotic liver disease (MASLD) from 12.1% to 21.1% (p = 0.008), and venous thromboembolism from 0.4% to 3.4% (p = 0.019), whereas anaemia of chronic disease decreased from 7.5% to 2.2% (p = 0.007). The proportion of patients with ≥ 3 concurrent EIMs more than doubled (3.8% vs. 7.8%; p = 0.061).

Discussion/Conclusion: Over one decade, hospitalised patients with IBD exhibited a significantly greater overall extraintestinal burden, characterised by increases in metabolic, hepatobiliary and thromboembolic manifestations and a trend towards greater multimorbidity. These findings support systematic multidisciplinary assessment extending beyond classical EIMs.

7. Positive quantiferon test results in patients with inflammatory bowel disease affected by older age

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Introduction: Immunosuppressive therapies mainly used in Inflammatory Bowel Disease (IBD). Anti-TNF α agents may be a reason of latent tuberculosis (LTB) reactivation in daily practice. So, we primarily aimed to determine prevalence of LTB by using the QuantiFERON-TB Gold (QFTB) test. Second aim is to compare the characteristics of QFTB-positive and QFTB-negative IBD patients.

Methods: This retrospective study included 303 adult (18-years-old and older) IBD patients with QuantiFERON-TB Gold test results, between 2015 and 2023. Demographic data, IBD subtype (crohn's and ulcerative colitis), extraintestinal manifestations, previous therapies, fecal calprotectin levels and detailed TB evaluation results (Chest x-ray and PPD skin test) were collected in each patient. Continuous variables were analyzed using the Mann-Whitney U test, and categorical variables using chi-square or Fisher's exact tests.

Results: The overall QFTB test positivity rate was 23.1% (n = 70 patients), with 1.7% indeterminate results. Mean age was 53-years-old in QFTB test positives in vs. 42.5 years in negatives, $p < 0.001$). Moreover, the mean age at the IBD diagnosis were significantly higher in the QFTB-positive patients. No significant differences were observed across initial IBD treatments including mesalazine, corticosteroids, or azathioprine-based immunosuppression. Despite older age predicting LTBI positivity. QFTB-positive patients showed higher PPD skin test negativity (61.6% vs. 38.4%, $p < 0.001$), while the QFTB-negative group exhibited more anergic PPD skin test responses (82.4% vs. 17.6%).

Discussion/Conclusion: LTB is not a rare issue among the IBD patients, especially in older individuals. QFTB results were not influenced by IBD medications. But, older age is the main determinant for QFTB results positivity. Clinicians, IBD doctors who cares for IBD patients, should be alert and more carefull for tuberculosis reactivation especially in older patients wwith IBD.

8. Pathways to improve intestinal inflammation regulation in pediatric inflammatory bowel diseases

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Introduction: Few studies have evaluated the efficacy of butyric acid in treating children with inflammatory bowel disease (IBD). In children and adolescents with recently diagnosed IBD, the purpose of this research was to assess the efficacy of oral sodium butyrate as an adjunct to conventional treatment.

Methods: This trial was unicentric, prospective, randomised, and placebo controlled. 150 mg sodium butyrate single dose (group A) or a placebo (group B) were randomly assigned to patients with ulcerative colitis or Crohn's disease aged 7-18 years who were receiving conventional medication based on the severity of their conditions. Disease activity, C-reactive protein (CRP), and faecal calprotectin concentration differences between the two study groups at 12 weeks of the trial were the main outcomes.

Results: With 44 patients in group A and 44 in group B, 88 individuals with initially active illness finished the research. Most patients experienced remission by week 12 of the study (36 patients in Group A with sodium butyrate – 82%, and 11 patients in Group B with placebo – 48%). Between the two groups, a significant difference in disease activity was seen ($p = 0.001$), with a significant higher percent of cases in remission among those from lot A that received sodium butyrate compared to placebo. The sodium butyrate group appeared to have less systemic inflammation than the other group, as evidenced by the significantly lower CRP levels in Group A (18.14 ± 11.19 mg/L) compared to Group B (57.00 ± 33.28 mg/L) at 12 weeks (T2) ($p < 0.001$). No negative effects were recorded by any of the patients. Fecal calprotectin in Group A dropped much more after 12 weeks (T2) ($p < 0.001$), suggesting that the sodium butyrate group was better able to regulate intestinal inflammation.

Discussion/Conclusion: In newly diagnosed children and adolescents with IBD, a 12-week sodium butyrate supplementation did demonstrate effectiveness as an additional treatment and decreased the rate of relapsing cases.

9. Appropriate screening strategy and timely referral in suspected pIBD: Impact on diagnostic delay and severity at presentation

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Introduction: Pediatric-onset inflammatory bowel disease (pIBD) often presents with nonspecific symptoms, contributing to diagnostic delay (DD) and increased morbidity. Despite the importance of referral quality, diagnostic pathways in pIBD have rarely been evaluated. This study aimed to assess the appropriateness of diagnostic pathways in pIBD; to evaluate their impact on DD and early disease severity; and to identify predictors of pathway appropriateness and prolonged delay.

Methods: This retrospective, single-center observational study included 128 patients consecutively diagnosed with pIBD over a ten-year period (January 2015–June 2025) at a regional tertiary center in Italy. Diagnostic pathways were classified as appropriate, partially appropriate, or inappropriate according to predefined criteria reflecting referral trajectory and completeness of pre-referral screening (fecal calprotectin [FC] and/or abdominal ultrasound [AUS]). Appropriate pathways included structured referral from primary care with first-line screening or urgent referral for severe presentations. Partially appropriate pathways included indirect referral via another specialist or delayed screening performed only after gastroenterological evaluation. Inappropriate pathways reflected non-structured trajectories bypassing primary care or pediatric gastroenterology, irrespective of prior screening. DD was defined as the time from symptoms onset to endoscopy. Statistical comparisons were conducted across the three diagnostic pathway groups. Descriptive statistics, univariate, and multivariate analyses were used to explore associations between diagnostic pathways, diagnostic delay, and patient- or disease-related factors. A p -value < 0.05 was considered statistically significant.

Results: Pathways were inappropriate in 60.9% (95% CI: 52.3–69.0), partially appropriate in 21.9% (95% CI: 15.6–29.8), and appropriate in 17.2% (95% CI: 11.6–24.7). The median DD was 3.9 months (IQR: 2.9–4.7), with no significant differences among groups. Clinical presentation influenced pathway adequacy, in particular: acute severe colitis (ASC) (OR = 32.2, $p = 0.01$) and tenesmus (OR = 5.8, $p = 0.04$) were associated with appropriate pathways, fever (OR = 0.10, $p = 0.02$) and oral aphthosis (OR = 0.05, $p = 0.04$) with inappropriate ones. Shorter DD was independently associated with ASC ($B = -6.13$ months, $p = 0.04$), hematochezia ($B = -3.48$, $p = 0.04$), fever ($B = -4.25$, $p = 0.01$), and weight loss ($B = -3.42$, $p = 0.04$). Regarding pre-referral screening: FC and AUS were performed before referral in 60.2% and 42.2% of patients, respectively, and together in 32.8%. Overall, AUS showed significant bowel wall thickening (≥ 3 mm) in 51.9% of cases, ranging from 33% in external radiology services up to 100% in the 3rd level hospital setting ($p < 0.001$).

Discussion/Conclusion: Inappropriate pathways and lack of pre-referral screening are highly prevalent, although not consistently resulting in longer DD. Severe intestinal presentations favor appropriate investigations. Systemic or extraintestinal manifestations are more frequently associated with inappropriate pathways, suggesting limited early recognition. Standardized screening and referral protocols may optimize IBD management.

10. Endoscopic outcomes associated with anti-TNF and non-anti-TNF biologics for postoperative recurrence in Crohn's disease: A retrospective single-center study

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Introduction: Postoperative endoscopic recurrence (POR) in Crohn's disease (CD) remains a major clinical challenge despite advances in biologic therapies. While the efficacy of individual agents is well established, direct comparisons between biologic classes for the treatment of established POR are limited. This study aimed to compare the effectiveness of anti-TNF agents versus non-anti-TNF agents (vedolizumab and ustekinumab) in patients with CD and POR after ileocolic resection.

Methods: We conducted a retrospective, single-center study including adult patients with CD and endoscopically confirmed POR (Rutgeerts score $\geq i2$) following ileocolic resection. The primary endpoint was endoscopic response, defined as a ≥ 1 -point decrease in the Rutgeerts score. Secondary endpoints included changes in C-reactive protein (CRP) levels and patient-reported outcomes (PRO-2).

Results: A total of 67 patients were included: 44 (65.7%) received anti-TNF therapy and 23 (34.3%) received vedolizumab or ustekinumab. Endoscopic response was significantly higher in the anti-TNF group compared with the non-anti-TNF group (64.2% vs. 27.3%; OR = 4.8; 95% CI: 1.6–14.9; $p = 0.005$). Sensitivity analysis using a more stringent definition (Rutgeerts $\leq i1$) confirmed higher response rates in

the anti-TNF group (50% vs. 22.7%; $p = 0.036$). No significant differences were observed between groups in Δ CRP ($p = 0.71$) or Δ PRO-2 ($p = 0.75$). In multivariable analysis, anti-TNF therapy remained independently associated with endoscopic response (OR 5.29; 95% CI 1.58–17.73; $p = 0.007$).

Discussion/Conclusion: In this observational cohort, anti-TNF therapy was associated with higher endoscopic response rates than vedolizumab or ustekinumab in patients with established postoperative recurrence of Crohn's disease. These findings support the preferential use of anti-TNF therapy in this setting, although confirmation in larger prospective studies is warranted.

11. The psychological burden of inflammatory bowel disease: Clinical predictors of anxiety and depression

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Introduction: Inflammatory bowel disease (IBD) is associated with higher rates of anxiety and depression, which can impair functioning, lower quality of life, and potentially worsen disease outcomes. We aimed to identify clinical and demographic factors associated with anxiety and depression in patients with IBD, and to evaluate how well validated psychological screening tools perform in routine practice.

Methods: A cross-sectional study of IBD patients at the Shamir and Bnai Zion gastroenterology clinics. Participants completed validated self-report measures: the Patient Health Questionnaire-9 (PHQ-9) and the Generalized Anxiety Disorder-7 (GAD-7). We assessed the validity of these instruments, estimated the prevalence of psychological symptoms, and examined their associations with clinical parameters, patient characteristics, and disease severity.

Results: The study included 203 participants (52.5% female, mean age 49.38 ± 18.7 years; mean disease duration 13.9 ± 12.6 years) between May 26, 2025, and June 23, 2026. High internal consistency was found for all scales: PHQ-9 (Cronbach's Alpha [α] = 0.895), and GAD-7 ($\alpha = 0.930$). Significant positive correlations were found between both GAD-7 and PHQ-9 ($p < 0.001$).

Moderate-to-severe anxiety (GAD-7 ≥ 10) was observed in 38.9% of participants, and moderate-to-severe depression (PHQ-9 ≥ 10) was found in 40.9%.

CD patients reported significantly higher levels of anxiety (GAD-7: 8.74 vs. 6.16, $p = 0.010$), depression (PHQ-9: 9.99 vs. 7.27, $p = 0.004$) than UC patients.

Higher GAD-7 scores were significantly associated with history of hospitalization ($p = 0.003$), active biological treatment ($p = 0.032$), and higher clinical activity scores (Mayo $p = 0.001$, HBI, $p < 0.001$). Higher PHQ-9 scores were significantly associated with younger age ($p = 0.048$), current smoking ($p < 0.001$), history of hospitalization ($p = 0.001$), active biological treatment ($p = 0.004$), and higher clinical activity scores (Mayo $p = 0.002$, HBI $p < 0.001$).

Discussion/Conclusion: Psychological burden is present among patients with IBD, particularly those with Crohn's disease. The strong internal consistency of the GAD-7 and PHQ-9 tools supports their implementation in routine gastroenterological practice. Systematic screening is essential for addressing both physical and psychological well-being.

12. Hydroethanolic extract of *Cereus jamacaru* attenuates DSS-induced experimental colitis

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Introduction: Ulcerative colitis is a chronic inflammatory bowel disease characterized by intestinal barrier disruption, excessive immune activation, and oxidative stress. *Cereus jamacaru* DC., a cactus native to northeastern Brazil, contains bioactive compounds with reported antioxidant and anti-inflammatory properties. This study investigated the protective effects of a hydroethanolic extract of *C. jamacaru* in a dextran sulfate sodium (DSS)-induced acute colitis model.

Methods: A hydroethanolic extract of *C. jamacaru* cladodes was prepared by maceration and freeze-drying. Male C57BL/6J mice were randomly assigned to five groups ($n = 12/\text{group}$): healthy control, DSS, infliximab (10 mg/kg), CJ100 (100 mg/kg), and CJ200 (200 mg/kg). The extract was administered orally for 10 days before DSS exposure and throughout the experimental period. Acute colitis was induced with 3% DSS in drinking water for five days. Disease severity was assessed by disease activity index (DAI), colon length, colon weight-to-length ratio, and spleen weight. Colon samples were analyzed by histopathology, immunofluorescence, flow cytometry, and RT-qPCR to evaluate tissue damage, epithelial barrier integrity, immune cell populations, and inflammatory gene expression.

Results: Pretreatment with *C. jamacaru* attenuated DSS-induced colitis, as evidenced by improvements in clinical and morphological parameters, preservation of colon architecture, and reduced inflammatory cell infiltration. Treatment modulated immune cell populations, downregulated pro-inflammatory mediators, and preserved epithelial barrier integrity through increased occludin expression. These effects were accompanied by improved histopathological scores, suggesting that the extract effectively reduced intestinal inflammation and promoted mucosal protection. The 100 mg/kg dose demonstrated the greatest overall therapeutic efficacy.

Discussion/Conclusion: The hydroethanolic extract of *C. jamacaru* exerted significant anti-inflammatory and mucosal protective effects in experimental DSS-induced colitis by reducing intestinal inflammation, modulating immune responses, and preserving epithelial barrier function. These findings support *C. jamacaru* as

a promising natural therapeutic candidate for the prevention and management of inflammatory bowel disease.

13. Beyond the guidelines: Multidisciplinary decision-making in a complicated twin pregnancy in a woman with Crohn's disease

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Introduction: Caring for pregnant women with inflammatory bowel disease (IBD) remains a significant challenge, particularly when pregnancy is complicated. Evidence guiding therapeutic decisions in such situations remains limited.

Methods: A 35-year-old woman with Crohn's disease, status post right hemicolectomy with ileostomy, presented at 23 weeks of a dichorionic diamniotic twin pregnancy for the eighth dose of infliximab. During therapy, she had achieved sustained clinical and biochemical remission, confirmed by low fecal calprotectin and C-reactive protein levels. On admission, she reported that intrauterine demise of one fetus had been diagnosed four weeks earlier. Obstetric ultrasonography confirmed normal fetal well-being of one fetus and intrauterine demise of the second.

Results: Due to CD remission, considering the lack of evidence regarding the safety of biologic therapy in this specific case, together with the potential risk of intrauterine infection and life-threatening maternal complications, a multidisciplinary team, including gastroenterologists and obstetricians, together with the patient through shared decision-making, decided to discontinue infliximab. The decision was driven by concern that retention of the demised fetus might increase the risk of intrauterine infection while the patient remained in deep remission from CD, making temporary discontinuation of infliximab a clinically acceptable

individualized approach. She underwent caesarean section at 36 weeks of gestation and gave birth to a healthy surviving twin (Apgar score 9).

Discussion/Conclusion: To our knowledge, evidence regarding anti-TNF management following second-trimester single intrauterine fetal demise in women with Crohn's disease is extremely limited. Although current IBD guidelines recommend continuation of anti-TNF therapy during pregnancy, they do not address this rare clinical scenario. This case highlights the importance of individualized multidisciplinary decision-making when evidence-based recommendations are lacking. Further reports are needed to inform future recommendations.

14. Bone mineral density at patients with inflammatory bowel disease

Cristina Deliu (Bals, RO), Oana Chirea (Craiova, RO), Daniela Neagoe (Craiova, RO), Amelia Genunche (Craiova, RO)

Introduction: Bone demineralization is a fairly common condition in patients with inflammatory bowel disease. We aimed to evaluate bone mineral density in patients with inflammatory bowel disease.

Methods: In this study we included patients diagnosed with ulcerative colitis and Crohn's disease without previous diagnosis of low bone mineral density. All patients underwent a standardized evaluation that included dual-energy-x-ray absorptiometry at the lumbar spine, laboratory testing including C-reactive protein, fecal calprotectin, vitamin D and hip to measure bone mineral density by a rheumatologist.

Results: In total, 43 and 39 patients with ulcerative colitis and Chron's disease, respectively, were included. Among postmenopausal women (age ≥ 51 years) with ulcerative colitis, 14/39 (35.8%) had osteoporosis and 17/39 (43.5%) had osteopenia, while rates among patients with Chron's disease were 12/39 (27.9%) and 14/39 (35.8%), respectively. Among younger patients, bone mineral density below the expected range for age was observed in 4/39 (10.2%) and 5/39 (12.8%) of females and males with Chron's disease, and in 4/43 (9.3%) and 3/43 (6.9%) with ulcerative colitis, respectively. No nutritional or inflammatory marker, including C-reactive protein, fecal calprotectin, Mayo Endoscopic Score, correlated with the T-score. Multivariable analysis did not identify variables associated with low bone mineral density. After the evaluation by the rheumatologist, vitamin D supplementation was initiated for 56 (68.2%) patients, and anti-osteoporosis treatment was started for 26 (31.7%).

Discussion/Conclusion: The high rate of osteopenia and osteoporosis in patients diagnosed with inflammatory bowel disease necessitates early assessment, wich is recommended to improve quality of life and reduce the risk of fractures associated with bone demineralization.

15. Sacroiliac joint inflammation in patients with inflammatory bowel disease

Ionela Cristina Deliu (Bals, RO), **Amelia Genunche** (Craiova, RO), **Daniela Neagoe** (Craiova, RO), **Oana Chirea** (Craiova, RO)

Introduction: To examine if inflammatory bowel disease influences disease activity and sacroiliac joint inflammation in patient with axial spondyloarthritis.

Methods: Active axial spondyloarthritis was assessed using Ankylosing Spondylitis Disease Activity Score (ASDAS ≥ 3.5) and Bath Ankylosing Spondylitis Disease Activity Index (BASDAI ≥ 4) and in dataset 183 patients. Active inflammation in the sacroiliac joint was mesured with MRI- based scoring system using Spondyloarthritis Reserch Consortium of Canada Sacroiliac Joint Score (SPARCC SIJ ≥ 2).

Results: Among 183 patients with sacroiliac joint progression patients, 42 (22.95%) had inflammatory bowel disease. Compared with sacroiliac joint-only patients, those with inflammatory bowel disease had higher rates of peripheral arthritis, dactylitis and elevates fibrinogen and C-reactive protein and lower HLA-B27, MMP-3 and DKK-1 positivity. Inflammatory bowel disease was not associated with an increased risk of active axial spondyloarthritis (OR = 0.97 95% CI: 0.76-1.29) or sacroiliac joint inflammation (OR = 1.44, 95% CI: 0.76-2.69).

Discussion/Conclusion: Patients with inflammatory bowel disease presented distinct clinical features but did not have worse disease activity or greater sacroiliac joint inflammation than those with axial spondyloarthritis alone. The severity of axial spondyloarthritis is not exacerbated by inflammatory bowel disease, even though they share similar immunopathogenic mechanism

16. Treatment persistence across first-, second-, and third-line advanced therapies in inflammatory bowel disease: A multicentre real-world study

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Background: Treatment persistence is a key indicator of long-term effectiveness of advanced therapies in inflammatory bowel disease (IBD). However, real-world data comparing persistence across different lines of therapy and identifying associated predictors remain limited. We aimed to evaluate treatment persistence across therapeutic lines and to identify clinical factors associated with treatment discontinuation in a large multicentre IBD cohort.

Methods: We conducted a retrospective, multicentre cohort study including IBD patients who initiated advanced therapy from 2018 across tertiary referral centres in Italy, due to moderate-to-severe disease activity refractory to conventional treatment, in accordance with ECCO guidelines. Treatment persistence and discontinuation were recorded for first-, second-, and third-line therapies up to the last available follow-up (January 2026). Persistence across advanced therapies was assessed using Kaplan-Meier analysis and compared using the log-rank test. Multivariable Cox proportional hazards models, adjusted for clinically relevant covariates, were used to confirm differences between treatments and identify predictors of treatment discontinuation.

Results: A total of 904 IBD patients (M:F ratio 1.2:1; median age 47 years, IQR 31–61; 426 Crohn's disease, 460 ulcerative colitis, 18 IBD-unclassified) were included. Significant differences in first-line persistence were observed across therapies (log-rank $p = 0.01$). Median persistence was 30 months for adalimumab, 26 months for infliximab, 43 months for vedolizumab, and 36 months for ustekinumab. Treatment discontinuation was primarily driven by secondary loss of response (43.9%), followed by intolerance or allergic reactions (19.3%) and primary non-response (18.5%). In multivariable analysis (Table 1), vedolizumab (HR = 0.58, 95%

CI: 0.42–0.80; $p < 0.01$) and ustekinumab (HR = 0.39, 95% CI: 0.17–0.89; $p = 0.03$) were associated with improved persistence. Conversely, ulcerative colitis (HR = 1.59, 95% CI: 1.15–2.21; $p < 0.01$) and higher multimorbidity burden as assessed by the Charlson index (HR = 1.11, 95% CI: 1.00–1.22; $p = 0.04$) were independently associated with increased discontinuation risk. In stratified analyses, C-reactive protein (HR = 1.99), smoking (HR = 4.99), complicated disease (HR = 7.10) and perianal disease (HR = 4.64) were associated with discontinuation in Crohn's disease, while higher Mayo endoscopic score showed a trend towards increased risk of treatment discontinuation in ulcerative colitis. In second-line therapy, persistence differed significantly across treatments (log-rank $p < 0.01$), with longer median persistence observed for vedolizumab (46 months) and ustekinumab (45 months). Multimorbidity burden and ulcerative colitis phenotype were also associated with higher discontinuation in second-line therapy. In third-line therapy, no significant differences in persistence among drugs were observed (log-rank $p = 0.30$).

Conclusion: Treatment persistence varies across therapeutic lines and drug classes, supporting an individualised treatment strategy in IBD. Early positioning of anti-integrins and anti-IL12/23 agents may improve long-term treatment durability, while clinical factors such as multimorbidity burden and IBD type can help identify patients at higher risk of discontinuation. Biochemical and endoscopic activity may further refine risk stratification.

17. Budesonide MMX for immune checkpoint inhibitor-induced colitis: Rapid clinical response in a multicentre real-world cohort

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Introduction: Immune-mediated colitis (ImC) shares several clinical, endoscopic and histological features with inflammatory bowel disease (IBD), representing a relevant diagnostic and therapeutic challenge for gastroenterologists. Immune checkpoint inhibitors (ICIs) have revolutionized cancer treatment, but are associated with immune-related adverse events, including immune-mediated colitis (ImC). Current management also includes systemic corticosteroids, which may lead to significant adverse effects and potentially interfere with anticancer immune responses. Budesonide MMX, a low-systemic-absorption corticosteroid with targeted colonic release represents an attractive therapeutic alternative. However, data on its efficacy in ImC remain scarce.

Methods: We conducted a retrospective study including consecutive adult patients diagnosed with ImC and treated with budesonide MMX 9 mg/day (2022–2025) at Fondazione IRCCS Policlinico San Matteo and ICS Maugeri IRCCS, two tertiary referral centres in Pavia, Italy, in an outpatient setting. Diagnosis was established through clinical, endoscopic and histological assessment. Demographic,

oncological, endoscopic, histopathological and therapeutic data were collected. The primary outcome was clinical response to budesonide MMX therapy, defined as complete response if diarrhoea was CTCAE = 0, or as clinical improvement if diarrhoea was CTCAE = 1 or improved by at least two CTCAE grades from baseline and different from 0.

Results: Twenty-eight patients treated with budesonide MMX were included (mean age 67.9 ± 8.6 years; 16 males). Most patients had advanced malignancies (23 [81.5%] stage IV disease), and pembrolizumab was the most frequently administered ICI (17, 60.7%). All patients presented with diarrhoea; 14 (50.0%) experienced CTCAE grade 3 diarrhoea and 3 (10.7%) grade 4 diarrhoea. Endoscopic patterns included indeterminate (14, 50.0%), IBD-like (7, 25.0%), and microscopic colitis (7, 25.0%). Colitis required hospitalization and ICI discontinuation in 19 (67.9%) cases; these patients were treated with systemic steroids during hospitalization and were started on budesonide MMX at discharge. The other 9 patients (32.1%) started budesonide MMX as outpatient. Overall, clinical response at one month was achieved in 22 (78.6%), including clinical improvement in 14 (50.0%) and complete clinical remission in 8 (28.6%). Complete clinical remission was achieved in 20/22 (90.9%), and clinical response maintained in 2/22 (9.1%) at three months. Mean time to clinical response was 9.4 ± 7.0 days. At last follow-up (mean 17 ± 16 months), relapse occurred in 5 (17.9%), either during (1, 3.6%) or after (4, 14.3%) budesonide discontinuation, with no serious budesonide-related adverse events.

Discussion/Conclusion: Budesonide MMX achieved rapid clinical benefit in patients with ImC, including those requiring hospitalization and ICI interruption. Its favourable safety profile and limited systemic exposure support its potential role as a systemic steroid-sparing strategy, with the aim of controlling intestinal toxicity while preserving access to immunotherapy, even on a long-term. These findings support further evaluation of budesonide MMX as part of a personalized therapeutic strategy for ImC.

18.Characterization of mucosa-associated microbiota in ulcerative colitis: Toward microbiota-guided prognosis and therapy

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Introduction: Ulcerative colitis (UC) is characterised by chronic mucosal inflammation linked to gut dysbiosis. Microbial profiling in inflammatory bowel disease has largely relied on faecal samples, which represent the luminal community and may overlook the mucosa-adherent microbiota in direct contact with the inflamed epithelium. In this pilot study we characterised the mucosa-associated microbiota of UC patients, comparing damaged and healthy colonic mucosa with paired

luminal (faecal) samples, to identify niche-specific signatures with prognostic and therapeutic value.

Methods: Fifteen patients with UC were enrolled and their clinical variables recorded. A faecal sample (luminal microbiota) was collected the day before colonoscopy; during colonoscopy, mucosal scrapings were obtained from damaged and healthy areas (mucosa-associated microbiota). Microbial composition was determined by next-generation sequencing and analysed bioinformatically, including correlation with clinical variables.

Results: Both alpha and beta diversity differed between luminal and mucosa-associated communities. At genus level, the damaged mucosa was enriched in *Escherichia-Shigella* and *Lachnospiraceae*, the healthy mucosa in *Sutterella*, and faeces in *Prevotella*. Differential-abundance analysis identified *Coprococcus comes* as specifically increased in the damaged mucosa. Clinically, higher *Prevotella* and *Sutterella* in faeces and healthy mucosa correlated negatively with markers of UC severity, whereas in the damaged mucosa *Lachnospiraceae* correlated strongly with post-surgical recurrence and disease extension.

Discussion/Conclusion: Luminal and mucosa-associated compartments harbour distinct microbial communities in UC, with *Coprococcus comes* emerging as a mucosa-restricted taxon and damaged-mucosa *Lachnospiraceae* associated with poor prognosis. Profiling the mucosa-adherent microbiota of inflamed tissue may provide prognostic biomarkers and guide microbiota-targeted therapeutic strategies in UC.

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19. Gut microbiota as a determinant of infliximab response: Evidence from a humanised mouse model of DSS-induced colitis

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Introduction: Introduction. Primary non-response to infliximab affects a substantial proportion of patients with inflammatory bowel disease (IBD) and remains without an established mechanistic explanation, limiting the clinical value of TNF blockade. The gut microbiota and its metabolic products have been proposed as possible determinants of this variability in treatment response. We therefore investigated whether the gut microbiota of IBD patients influences intestinal inflammation and the therapeutic response to infliximab.

Methods: Germ-depleted mice were humanised with faecal microbiota from IBD patients and subjected to DSS-induced colitis, followed by treatment with IFX (10 mg/kg). Body weight loss and disease activity index (DAI) were monitored, together with macroscopic variables (spleen and caecum weight, colon weight and

length). Relative colonic expression of IL-6, TNF- α , IL-17, IL-23a, mucins (MUC1-4) and occludin was determined by qPCR. In parallel, nitrite production was quantified by the Griess method in RAW 264.7 macrophages exposed to 23 microbiota-derived metabolome samples at three concentrations (1, 5 and 10 $\mu\text{g/mL}$). Endpoint macroscopic and qPCR data were analysed by Student's t-test and the remaining data by two-way ANOVA with multiple-comparison testing ($p < 0.05$).

Results: IFX attenuated colitis in humanised mice, significantly reducing the disease activity index ($p < 0.001$). At the molecular level, occludin expression showed an upward trend consistent with better preservation of epithelial barrier integrity, although this did not reach statistical significance, and MUC1, MUC2 and IL23A expression decreased, suggesting reduced activation of pro-inflammatory pathways. In contrast, IL-6, TNF- α , IL-17, MUC3, MUC4 and macroscopic variables were unchanged, indicating that the drug effect in this microbiota-humanised setting was partial and restricted to selected readouts. In vitro, a subset of metabolome samples significantly increased nitrite production by macrophages in a concentration-dependent manner, demonstrating that microbiota-derived metabolites are immunologically active and can drive macrophage activation.

Discussion/Conclusion: In a colitis model colonised with microbiota from IBD patients, infliximab reduced disease activity while producing only partial molecular improvement, and microbiota-derived metabolites directly modulated macrophage activation in vitro. These preliminary findings identify the gut microbiota and its metabolic output as a relevant substrate underlying the heterogeneity of anti-TNF response, and support its further investigation as a determinant of treatment outcome in IBD.

20. Bridging 1H-NMR metabolomic analysis with clinical practice in idiopathic inflammatory bowel diseases

Maria Gazouli (Athens, GR)

Introduction: The study focused on characterizing metabolomic differences between patients with inflammatory bowel disease (IBD) and healthy controls, as well as evaluating their usefulness for developing disease classification models. Additionally, the prognostic value of metabolic markers regarding response to treatment was investigated.

Methods: A total of 180 urine samples were collected from IBD patients and healthy controls, of which 16 were from patients with Crohn's disease ($n = 16$), 81 from patients with ulcerative colitis ($n = 81$), and 45 from healthy individuals ($n = 45$). Among patients with ulcerative colitis, 48 received treatment with JAK inhibitors, with samples available prior to treatment initiation and, for 38 of them, also after treatment initiation, accompanied by clinical response data. Sample analysis was performed at the Biomolecular NMR Spectroscopy Laboratory of the Department of Pharmacy, University of Patras, using a high-field ^1H NMR spectrometer (700 MHz). Spectral data were appropriately processed and analyzed using univariate and multivariate statistical methods.

Results: Metabolomic analysis revealed distinct metabolic patterns differentiating IBD patients from healthy individuals. Significant changes were observed in citrate and succinate levels, as well as notable alterations in the gut microbiome, reflected by changes in short-chain fatty acids and metabolites such as formate and hippurate. At the same time, efforts were made to develop disease classification models. Additionally, metabolic features associated with response to JAK inhibitor therapy in patients with ulcerative colitis were identified.

Discussion/Conclusion: Metabolomic studies using NMR spectroscopy can help elucidate metabolic disturbances associated with the pathogenesis of Crohn's disease and ulcerative colitis and contribute to understanding host metabolic changes, whether due to disease progression over time or as a result of therapeutic intervention.

21. LC-MS metabolomic profiling identifies bioactive metabolites in *Limosilactobacillus fermentum* CECT5716 extracellular vesicles that promote intestinal barrier repair and immune regulation through TLR4-dependent macrophage polarization

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Introduction: Extracellular vesicles (EVs) released by commensal bacteria are emerging as key mediators of host-microbe communication and as attractive candidates for the treatment of inflammatory bowel disease (IBD). We investigated EVs derived from the probiotic *Limosilactobacillus fermentum* CECT5716 (LEVs), characterising their metabolite cargo and their capacity to restore intestinal barrier integrity and immune homeostasis during intestinal inflammation.

Methods: LEVs were characterised by transmission electron microscopy, dynamic light scattering and LC-MS-based metabolomics. Barrier-protective and immunomodulatory effects were assessed in Caco-2 epithelial cells and RAW 264.7 macrophages, and the contribution of Toll-like receptor signalling was dissected using selective TLR2 and TLR4 inhibitors. Therapeutic efficacy was tested in dextran sulfate sodium (DSS)-induced colitis; colonic tissue was analysed by histology, gene expression and immunofluorescence, and systemic immune populations, gut microbiota composition and short-chain fatty acids (SCFAs) were evaluated by flow cytometry and microbiological analyses.

Results: LEVs were nanosized, spherical vesicles carrying a diverse cargo of peptide derivatives, phospholipids, sphingolipids, fatty acid-related metabolites and oligosaccharides. In vitro, LEVs strengthened the epithelial barrier increasing tight junction markers and villin and reduced IL-6, IL-8 and TNF- α in Caco-2 and Raw 267 cells, while driving an anti-inflammatory, CD206 M2-like macrophage

phenotype. TLR4 inhibition abrogated these macrophage responses, identifying a TLR4-dependent mechanism. In vivo, LEVs attenuated DSS colitis, limiting body weight loss, colon shortening and mucosal damage; restored barrier-associated gene expression (Muc1, Muc3, Villin) and Ki67 epithelial proliferation; shifted inflammatory monocytes toward regulatory phenotypes; and contributed to normalising gut microbiota composition and SCFA profiles.

Discussion/Conclusion: *L. fermentum* CECT5716-derived EVs protect against intestinal inflammation by coordinately promoting epithelial repair, TLR4-dependent immune regulation and microbiota SCFA recovery, underpinned by a defined bioactive metabolite cargo. These findings highlight LEVs as promising postbiotic candidates for IBD treatment through coordinated effects on barrier integrity, immune homeostasis, and host-microbiota interactions.

22. Relationships between severity of extraintestinal manifestations in inflammatory bowel disease, disease activity and remission maintenance therapy of IBD

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Introduction: We determined the prevalence and the types of extraintestinal manifestation in IBD and identified possible relationships between the bone mineral density (BMD) and the localization and activity of IBD. Also, we evaluated effect on BMD of the long-term steroid therapy or immunosuppressant treatment for remission maintenance of IBD.

Methods: We studied 32 patients with IBD: 22 patients with ulcerative colitis (UC) and 10 patients with Crohn's disease (CD). The therapy for induction of remission consists of mesalazine (Salofalk® 2-3 g/day) associated with Budesonide (3 x 3 mg/day) and all patients follow-up immunosuppressant therapy for maintenance of remission. The osteoarticular manifestations were clinical, radiological and biochemical investigated. Also, we identified dermatological manifestation, ophthalmic involvement and hepatobiliary manifestation.

Results: The rheumatic manifestations of UC patients were: pauciarticular peripheral arthropathies (7 cases), polyarticular peripheral arthropathies (3 cases) and only one patient was diagnose with ankylosing spondylitis. CD patients present polyarticular peripheral arthropathies in 2 cases (20%) and ankylosing spondylitis in one case. We identified 5 cases with cutaneo-mucosal lessions (3 cases with oral aphthosis and 2 cases with erytema nodosum), 4 patients with ophtalmologic involvement (uveitis in 2 case and scleritis in 2 cases) and only one cases with primary sclerosing cholangitis. More patients had multiple extraintestinal manifestation (4 cases). The incidence of osteoporosis was significant higher in UC patients (36.36%) comparative with CD patients (20%). We have not found a correlation between BMD and ages, gender or severity of IBD activity, but T-score was correlated with C reactive proteine and hipocalcemia. History

of long-term treatment with corticosteroids (in the last 3 years) was associated with less than minus-2.5 values of T-score. The localization of IBD and values of clinical disease activity index (CDAI in CD and Powell Tuck Index in UC) were not significantly correlated with T-score, but osteoporosis was present more frequent in patients with CDAI > 220 or large extension of disease.

Discussion/Conclusion: The extraintestinal manifestations and especially the osteo-articular and cutaneous-mucosal implications are common in patients with IBD. The low BMD, uncorrelated with the localization, duration and severity of disease, remain a therapy challenge in remission maintenance of IBD.

23. NFATc3 orchestrates T cell-mediated colitis via Treg dysregulation

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Introduction: NFAT transcription factors are critical integrators of signaling pathways controlling lymphocyte differentiation and function. While NFATc3 is essential for T cell activity, its specific role in intestinal inflammation remains poorly defined. We therefore investigated NFATc3 expression and function in human IBD samples and murine models of colitis.

Methods: We analyzed intestinal tissue sections from IBD patients by qPCR and immunofluorescence. Functionally, we employed T cell-specific NFATc3 knockout mice in oxazolone-induced and T cell transfer colitis models. Disease severity was assessed by clinical scoring and histopathology. Cellular analyses were performed by isolating lamina propria mononuclear cells to determine NFATc3 expression and immune populations, focusing on Th17 and regulatory T cells. Correlative analyses with key lineage-specifying transcription factors and suppression genes were conducted.

Results: Human IBD samples revealed significant NFATc3 upregulation, predominantly in T cells during active inflammation, which strongly correlated with FoxP3 expression. Cyclosporine A treatment downregulated all NFAT members while upregulating FoxP3. In murine models, NFATc3 increased during inflammation, shifting from epithelial to T cell localization. Transfer colitis confirmed robust NFATc3 upregulation. Mice with NFATc3-deficient T cells showed no colitis, with fewer Th17 cells and more regulatory T cells than WT controls. Expression of NFATc3 correlated with Spi1, FoxP3, RORc, and Tbx21. Suppression genes were elevated in KO animals, while Treg suppressive function per cell was comparable between genotypes.

Discussion/Conclusion: Our findings define a critical role for T cell-expressed NFATc3 in driving intestinal inflammation. NFATc3 deficiency promotes anti-inflammatory Treg accumulation and limits pathogenic Th17 responses, positioning NFATc3 as a promising IBD therapeutic target.

24. Determinants of anti-TNF alpha treatment outcomes in Crohn's disease and ulcerative colitis: A single-center pilot study

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Introduction: This pilot single-center retrospective study aimed to identify predictors of treatment failure among patients with inflammatory bowel disease (IBD) receiving first-line anti-TNF alpha therapy. Although monoclonal antibodies have substantially improved the management of Crohn's disease (CD) and ulcerative colitis (UC), a considerable proportion of patients experience inadequate response, resulting in disease progression, symptom exacerbation, impaired quality of life, and increased surgical risk. Identifying clinical determinants associated with treatment failure is essential for optimizing therapeutic strategies and guiding early decision-making in biologic-naïve patients.

Methods: This pilot single-center retrospective study aimed to identify predictors of treatment failure among patients with inflammatory bowel disease (IBD) receiving first-line anti-TNF alpha therapy. Although monoclonal antibodies have substantially improved the management of Crohn's disease (CD) and ulcerative colitis (UC), a considerable proportion of patients experience inadequate response, resulting in disease progression, symptom exacerbation, impaired quality of life, and increased surgical risk. Identifying clinical determinants associated with treatment failure is essential for optimizing therapeutic strategies and guiding early decision-making in biologic-naïve patients.

We performed a retrospective observational study including biologic-naïve patients diagnosed with CD or UC who initiated first-line anti-TNF alpha therapy at a single tertiary center. Demographic, clinical, and therapeutic variables (age at diagnosis, age at treatment initiation, sex, IBD subtype, and type of first-line anti-TNF alpha agent) were collected from electronic medical records. Patients were followed until treatment failure, defined as primary non-response, secondary loss of response, therapy discontinuation due to inefficacy, or escalation to another biologic. Adverse events leading to discontinuation were excluded from the primary failure analysis. Descriptive statistics were used to characterize the cohort, and univariate analyses were performed to evaluate predictors of failure.

Results: A total of 196 patients were included (51.5% females), comprising 133 with CD (67.9%) and 63 with UC (32.1%). First-line therapies consisted of infliximab (IFX, 56.1%), adalimumab (ADA, 42.9%), and golimumab (1.0%). Mean age was 41.1 years at analysis and 30.1 years at diagnosis. CD patients showed significantly higher failure rates compared with UC patients (50.0% vs. 31.9%, $p = 0.036$). ADA treatment was associated with increased failure compared with IFX (56.2% vs. 34.9%, $p = 0.007$).

Discussion/Conclusion: CD diagnosis and first-line ADA therapy were significantly associated with anti-TNF alpha treatment failure. Although IFX demonstrated greater effectiveness, further evaluation of subsequent therapeutic lines, including intra-class switching, is warranted.

25. Wrong turn in Montreal: How SRUS steered L1 Crohn's disease into L3 territory

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Introduction: The Montreal Classification of Crohn's disease (CD) is essential for guiding therapeutic strategies based on disease location, behavior, and perianal modifiers. Concurrent upper gastrointestinal (L4) and ileocolonic (L3) involvement represents an extensive and severe phenotype that typically requires early, aggressive biologic therapy. However, coexisting mechanical or functional anorectal disorders can closely mimic refractory IBD. Solitary Rectal Ulcer Syndrome (SRUS) is a rare condition that can create a diagnostic overlap, leading to phenotypic misclassification, false assumptions of biological treatment failure, and inappropriate treatment escalation.

Methods: A 27-year-old male was evaluated for a history of mucoid, bloody, diarrheal stools, persistent abdominal pain, and concurrent dyspeptic symptoms. The initial diagnostic workup revealed multi-segmental gastrointestinal involvement. Ileocolonoscopy and magnetic resonance enterography (MRE) demonstrated active inflammatory changes in the terminal ileum. Baseline biopsies demonstrated focal architectural irregularity, reactive epithelial changes and prominent lymphoid hyperplasia with germinal-centre formation in the terminal ileum. At the ileocecal valve, patchy lymphoplasmacytic expansion of the lamina propria with focal active cryptitis was observed. In the appropriate endoscopic and radiological context, these discontinuous inflammatory changes supported the diagnosis of ileocecal Crohn's disease. Concurrently, esophagogastroduodenoscopy (EGD) revealed a 6 mm punched-out ulcer at the gastric angulus (histologically confirmed as focal, chronic active gastritis), while rectosigmoidoscopy showed a severe, well-defined rectal ulcer with non-specific active inflammatory changes.

Combined with a fecal calprotectin level $> 1,000 \mu\text{g/g}$, a definitive diagnosis of Crohn's disease was established and stratified as a severe A2 L3+L4 B1p0 phenotype. The patient proved corticosteroid-dependent under conventional step-up therapies prompting the initiation of anti-TNF biotherapy with adalimumab. Following maintenance therapy, a profound divergence in treatment response emerged: repeat multi-segmental evaluation confirmed complete proximal remission (total mucosal and radiological healing of both the terminal ileum and the gastric ulcer), but the severe rectal ulcer surprisingly persisted, developing a stellar configuration.

Results: To resolve this therapeutic paradox, proactive Therapeutic Drug Monitoring (TDM) was performed, which revealed an optimal adalimumab trough concentration ($6.71 \mu\text{g/mL}$) with no anti-drug antibodies, effectively ruling out pharmacokinetic failure. Instead of escalating the biological treatment, targeted deep biopsies of the rectal margins and functional anorectal testing were conducted. Histology demonstrated fibromuscular obliteration of the lamina propria, and a balloon expulsion test (BET) confirmed dyssynergic defecation

(anismus)—both pathognomonic hallmarks of Solitary Rectal Ulcer Syndrome (SRUS). In light of these findings, the patient's true IBD status was re-evaluated. The genuine CD phenotype was re-classified as L1 B1p0, which was already in complete mucosal and radiological remission. The persistent distal lesions and subsequent stenosis were recognized as purely mechanical and functional consequences of the coexisting SRUS rather than refractory Crohn's colitis. This phenotypic clarification successfully averted inappropriate biological switching or dose escalation and shifted management toward targeted pelvic-floor conservative therapy.

Discussion/Conclusion: Differentiating true refractory Crohn's colitis from a coexisting functional/mechanical disorder remains a significant clinical challenge. In this case, the initial gastric ulceration perfectly aligns with epidemiological data indicating that upper GI Crohn's disease predominantly coexists with distal intestinal pathology rather than appearing in isolation. However, this case highlights a critical diagnostic pitfall: SRUS can falsely expand the perceived IBD phenotype, mimicking an L3 colonic allocation and leading to an overestimation of disease severity. Prior to escalating biological or immunosuppressive therapies in cases of "refractory" distal disease, clinicians should routinely implement TDM, deep histopathological evaluation, and functional anorectal assessments to uncover potential non-IBD comorbidities.

26. Bridging gastroenterology and dentistry: Oral mucosa lesions and symptoms in patients with inflammatory bowel disease

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Introduction: IBD is a systemic, chronic, relapsing, immune-mediated disorder characterized by idiopathic inflammation of the gastrointestinal tract. While the primary morbidity of IBD stems from intestinal pathology, it is increasingly recognized as a systemic condition. Extraintestinal manifestations affect up to 40% of IBD patients, and involve the musculoskeletal, dermatologic, ocular, and hepatobiliary systems. Among these, manifestations within the oral cavity represent a clinically significant yet often underdiagnosed domain of the disease spectrum. Because the oral cavity shares embryological, histological, and immunological features with the lower gastrointestinal tract, it frequently mirrors the inflammatory processes occurring downstream. Oral presentations of IBD are mostly categorized into specific (predominantly associated with CD) and non-specific lesions. Although, the oral cavity provides an easily accessible window for early diagnostic screening, despite this, a significant clinical gap persists: oral examinations are rarely integrated into routine gastroenterological workups, and dental professionals frequently misinterpret these lesions as isolated local pathologies, non-related to IBD. This disconnection leads to prolonged diagnostic delays, missed opportunities for early therapeutic intervention, and incomplete assess-

ments of overall systemic disease activity. This study aims on addressing such gaps by characterizing the prevalence, phenotypic diversity, and diagnostic relevance of oral presentations in IBD to improve interdisciplinary screening and optimize patient stratification.

Methods: A longitudinal review of medical records, questionnaires, and repeated focused consultations by dentist involved 105 adult patients with IBD (CD/UC) and one or more of its oral manifestations affecting lips or oral mucosa. In addition, they were later contacted to indicate the anamnestic non-specific oral symptoms they have experienced including but not limited to dysphagia, regurgitation, changed taste (dysgeusia), persistent bad breath (halitosis), dry mouth (xerostomia), etc. Patients under 18-years-old, with any orthodontic appliances, without a clear diagnosis of IBD, and with other diseases that could interfere with the variables in study, were excluded from the cohort. IBD activity was clinically and laboratory evaluated with focus on Crohn's Disease Activity Index (CDAI) and the Simple Clinical Colitis Activity Index (SCCAI). Smoking and disease duration were taken into account as potential factors aggravation oral IBD manifestations. Control group was formed by 20 healthy (without oral/GI pathologies) individuals. Informed consent was obtained from all participants. The mean age was 46.31 ± 12.44 years, 48.8% of all individuals were male and 51.23% were female without significant difference between groups. There were 24.8% of smokers and 75.2% non-smokers.

Results: Six patients (6.06%) were excluded from the study due to non-compliance. Among IBD group 57.58% had CD and 42.42% UC. All individuals of both groups performed basic hygienic procedures on daily basis resulting in 'good' Oral Hygiene Index Simplified (OHI-S < 1.0) in both IBD and control with insignificant difference ($p < 0.05$). Various lesions of the oral mucosa showed higher prevalence in the IBD group compared to control (8.08% versus 5.0%), even though this difference was not statistically significant ($p = 0.317$, $z = -0.475$). Analysis of oral symptoms prevalence showed halitosis in 20.20% of IBD group vs. 15% of control ($p > 0.05$); acid taste: 16.16% vs. 10% ($p > 0.05$); dysgeusia: 10.1% vs. 5.0% ($p > 0.05$); regurgitation: 20.20% vs. 10.0% ($p > 0.05$); dysphagia: 16.16% vs. 0.0% ($p = 0.053$); and xerostomia: 13.13% vs. 0.0% ($p = 0.086$). Lack of statistical certainty may be caused by the small number of control group individuals, with only dysphagia and xerostomia demonstrating acceptable associations with IBD. Active IBD strongly associated with an increased rate of oral mucosal lesions relative to the remissive state (35.35% vs. 4.04%, $p = 0.032$) with aphthous lesions correlated with disease activity. Similarly, patient-reported oral symptoms were significantly more prevalent during active flares than in remission. Neither the overall incidence of oral mucosal lesions, nor patient-reported oral symptoms differed significantly ($p > 0.05$) between patients with Crohn's disease and ulcerative colitis. Although non-smokers exhibited a higher rate of oral mucosal lesions than smokers, this difference was not statistically significant ($p > 0.05$). Likewise, smoking status showed no significant correlation with oral symptoms or any individual lesion or symptom type.

Discussion/Conclusion: Only few studies have previously addressed the relation between IBD and its possible oral symptoms. With some limitations indicated beforehand, this study using focused assessments found that patients with IBD were more likely to experience oral symptoms when compared with a control group of healthy individuals. Aphthous ulcers were the most significant expression of IBD, with no examples of pyostomatitis vegetans and orofacial granulomatosis, which were reported in other studies. The associations between IBD and oral mucosa lesions and symptoms represent a real clinical challenge, which should encourage multidisciplinary teams including dentists and gastroenterologists to plan a careful follow-up of these patients, in order to provide a better integrated treatment for these pathologies.

27. Immunophenotype of CD15/138/CD4 cells in tissue material from patients with ulcerative colitis and Crohn's disease

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Introduction: Inflammatory bowel disease (IBD) is a group of disorders characterized by long-standing inflammation of tissues in your digestive tract involving numerous different types of inflammatory cells. Plasma cells (CD138+) arise from the activation of B lymphocytes in the lymph nodes. After entering the node, B lymphocytes come into contact with Th lymphocytes (CD4+), resulting in the formation of the germinal center of the lymphoid follicle. Therefore, the objective of the present investigation is to analyze the insensitivity infiltration of cells of CD15/138/CD4 phenotype in endoscopic material from patients with ulcerative colitis (UC) and Crohn's disease (CD) patients.

Methods: The study group consists of 34 patients with ulcerative colitis and 8 patients diagnosed with Crohn's disease. The mean age of patients was 38 years old of UC and 31 years old in CD. The activity of diseases were examined according to Geboes score in UC and to Brennan classification in CD. Expression of CD4, CD15, CD138 were performed by immunohistochemistry and assessed in cytoplasmic color reaction classified into 1- weak, 2- moderate and 3- strong in lamina propria. CD15/138/CD4 phenotype cells were divided into 2 groups: CD15+/CD138+/CD4- and CD15+/CD138+/CD4+.

Results: The study group consists of 16 female and 18 male in UC, and 2 female and 6 male of CD. The UC lesions were mainly located in the rectum (19/34 cases), sigmoid (8/34 cases) and others (7/34 cases). Crohn's disease was observed in the small intestine (3/8 cases), caecum (4/8 cases) and rectum (1/8 cases). The inflammatory infiltration of cells of CD15+/CD138+/CD4- was observed in 14 cases of UC and 4 cases in CD. Immunophenotype CD15+/CD138+/CD4- of cells in UC slides was found to correlate with inflammation of neutrophils ($p = 0.031$; $R = 0.432$) and eosinophils ($p = 0.042$; $R = -0.393$) in lamina propria. We also observe a slight trend towards crypt destruction in the presentation of CD15+/CD138+/CD4- cells. In patients with CD, the specific

phenotype cells correlated with the location of the disease ($p = 0.042$, $R = 0.875$).

Discussion/Conclusion: Our study indicated that CD15+/CD138+/CD4- cells may have an impact on inflammatory cell organization and architectural changes in inflammatory bowel disease and warrant further detailed research.

28. Radiological colitis does not equal IBD: Implications of steroid prescribing in hospitalised patients with acute diarrhoea

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Introduction: Systemic corticosteroids are recommended in acute diarrhoea only when there is a strong suspicion of inflammatory bowel disease (IBD) flare. However, radiological colitis on computed tomography (CT) is non-specific and may lead to inappropriate steroid prescribing. We evaluated steroid use in patients admitted with acute diarrhoea, its diagnostic basis, and associated clinical outcomes

Methods: We conducted a retrospective study of consecutive adult admissions with acute diarrhoea (duration < 4 weeks) over a six-month period in a UK district general hospital ($n = 165$). Patients with known IBD or chemotherapy- or immunotherapy-related colitis managed under oncology protocols were excluded. Data collected included systemic steroid exposure, documentation of indication, stool microbiology testing, faecal calprotectin (FC), CT findings, endoscopic outcomes, antibiotic use, and length of hospital stay (LOS). Comparisons between steroid-treated and non-steroid-treated patients were performed using chi-square and Mann-Whitney U tests

Results: A total of 165 patients were included (62.4% female; median age 53 years). Forty-five patients (27.3%) received systemic steroids, frequently without appropriate documentation of indication. More than half of steroid-treated patients (53.3%) received steroids without prior stool culture or *Clostridioides difficile* testing. Faecal calprotectin was sent more frequently in patients receiving steroids than in those not receiving them (33.3% vs. 11.7%); however, median FC levels were higher in the non-steroid group, suggesting FC did not drive prescribing decisions.

CT imaging was performed in most steroid-treated patients, with radiological colitis reported in 88.9%, compared with 7.5% of non-steroid patients ($p < 0.001$). Endoscopic confirmation of colitis occurred in only 2 of 19 steroid-treated patients (10.5%), representing mild proctitis and ischaemic colitis. The single non-steroid patient with endoscopic colitis demonstrated non-specific endoscopic and histological findings. Steroid-treated patients had significantly prolonged hospital stay compared with non-steroid patients (median LOS 6 vs. 1 day; $p < 0.001$).

Discussion/Conclusion: Over one quarter of patients admitted with acute diarrhoea received systemic steroids, frequently based on CT-reported colitis despite its non-specific nature and poor correlation with faecal calprotectin and endoscopic findings. Steroid initiation often occurred without adequate exclusion of infective causes and was associated with significantly prolonged hospital stay. These findings highlight a substantial burden of potentially inappropriate steroid exposure and support targeted quality improvement interventions to standardise early diagnostic pathways and reduce reliance on CT findings alone.

29. Interpretation and clinical impact of multiplex PCR gastrointestinal panel testing in hospitalized IBD patients: A Serbian tertiary-center cohort

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Introduction: Multiplex PCR gastrointestinal panels cannot distinguish active infection from colonization, a critical limitation in inflammatory bowel disease (IBD), where separating a flare from superimposed enteric infection is a common dilemma. Balkan data are lacking.

Methods: We retrospectively studied 67 hospitalized IBD patients (37 Crohn's disease, 30 ulcerative colitis) with diarrhea undergoing qualitative multiplex PCR (BioFire FilmArray) at a Serbian tertiary center (2023–2026). PCR-positive and PCR-negative patients were compared for CRP, fecal calprotectin, composite objective activity (endoscopy and/or intestinal ultrasound), and management within 90 days. Performance was assessed against the clinician's final diagnosis.

Results: PCR was positive in 55%; bacteria predominated and 30% had co-detections. CRP (33 vs. 36 mg/L), calprotectin (both ≥ 1000 $\mu\text{g/g}$), and objective activity (74% vs. 85%) did not differ by PCR status; positives were younger (34 vs. 48 years old, $p = 0.017$) with shorter symptom duration (7 vs. 13 days, $p = 0.046$) and hospitalization (7 vs. 15 days, $p = 0.003$). Positive and negative predictive values against the clinical diagnosis were 54% and 80%; toxin confirmed only two of eight *C. difficile* detections. Antibiotics were prescribed in 81%, with shorter courses in positives (5 vs. 10 days, $p = 0.010$), yet 90% of PCR-negative patients were treated. IBD therapy was modified less often in positives (65% vs. 83%), including corticosteroid initiation (51% vs. 73%), although these differences were not statistically significant.

Discussion/Conclusion: PCR positivity matched neither inflammatory burden nor the final clinical judgement in nearly half of cases, while a negative panel rarely spared antibiotics. Multiplex PCR performs better as a rule-out than a rule-in test, and its principal value lies in supporting antimicrobial and diagnostic stewardship rather than in confirming infection. To our knowledge, this is the first Balkan cohort addressing these questions, however larger studies are needed.

30. Exploring the role of human endogenous retroviruses (HERVs) in ulcerative colitis: Expression patterns and impact on therapeutic response

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Introduction: Inflammatory bowel diseases (IBD), including ulcerative colitis (UC), are chronic immune-mediated disorders characterized by heterogeneous clinical presentation and variable response to therapy. Although targeted treatments have improved disease management, reliable biomarkers predicting therapeutic response remain limited. Human endogenous retroviruses (HERVs), remnants of ancient retroviral integrations within the human genome, have recently gained attention as potential regulators of immune activation, inflammatory signaling, intestinal barrier dysfunction, and host-microbiome interactions, all of which are relevant to IBD pathogenesis. The aim of the study was to evaluate the expression of HERV-K (gag, pol, env) and HERV-H env in patients with UC and to explore their association with disease-related mechanisms and clinical response to upadacitinib and tofacitinib.

Methods: Patients with UC treated with upadacitinib or tofacitinib, together with healthy controls, were enrolled in this prospective observational study. UC patients were stratified into responder and non-responder groups for each therapeutic agent according to clinical treatment response. Peripheral blood samples were collected before treatment initiation and eight weeks after therapy onset. RNA extraction was followed by real-time quantitative PCR (RT-qPCR) analysis to assess HERV-K gag, pol, and env, as well as HERV-H env expression. Statistical analysis was performed using GraphPad Prism.

Results: Preliminary RT-qPCR analysis revealed differential HERV expression patterns between responders and non-responders. The most prominent separation was observed at baseline among patients receiving upadacitinib, where HERV-K-related targets, particularly HERV-K env and HERV-K pol, displayed distinct expression profiles according to subsequent treatment response. This distinction was less evident in the tofacitinib-treated group. Overall, HERV-K gag, pol, env, and HERV-H env expression also differed between healthy controls and UC patients, as well as between pre-treatment and post-treatment samples.

Discussion/Conclusion: These preliminary findings suggest that HERV expression may contribute to disease heterogeneity and treatment response in UC. Baseline HERV-K expression, particularly in upadacitinib-treated patients, may represent a promising biomarker for patient stratification and personalized therapeutic decision-making.

31. Analysis of the intestinal microbiome using an endoscopic brush in ulcerative colitis

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Introduction: The precise pathogenesis of ulcerative colitis (UC) remains unclear, but microbial dysbiosis is recognized as a key contributing factor. The mucosa-associated microbiota play a central role in UC pathogenesis; however, optimal sampling methods for this microbiome are yet to be established. In this study, we investigated the mucosa-associated microbiome in UC patients using endoscopic brush sampling. We hypothesized that endoscopic brushing offers a precise and minimally invasive method to sample mucosa-associated microbiota.

Methods: Patients with UC visiting the gastroenterology department of Korea University Anam Hospital were prospectively enrolled. Clinical data including medical records, colonoscopy findings, and fecal samples were collected. Stool and saliva samples were obtained using standardized collection kits. Brushing samples were collected during sigmoidoscopy by performing 3–4 brush strokes on the colonic mucosa with a cytology brush. All samples underwent microbiome analysis at Korea University Medical Center.

Results: Between July 2022 and January 2023, 19 patients with UC were enrolled. Firmicutes, Bacteroidetes, Proteobacteria, and Actinobacteria were the dominant phyla across brush, stool, and saliva samples. No significant differences in alpha and beta diversity were observed between stool and brush microbiomes. However, the oral microbiome differed significantly from stool and brush samples in beta diversity. In subgroup analyses based on disease severity, a trend toward increased Firmicutes was noted with greater disease severity.

Discussion/Conclusion: In conclusion, the stool and brush microbiomes were comparable, indicating that endoscopic brushing is a viable method for sampling the mucosa-associated microbiome. Additionally, oral Firmicutes may serve as a potential biomarker for disease severity in UC. Further studies with larger cohorts are warranted.

32. Cell-free postbiotic fraction (< 3 kDa) from *L. fermentum* CECT5716 resolves chronic colitis and suppresses inflammation-driven colorectal cancer in preclinical experimental models

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Introduction: Colitis-associated colorectal cancer (CAC) arises from persistent mucosal inflammation that precedes and drives epithelial transformation; resolving this inflammatory process is therefore a key preventive target. Low-molecular-weight postbiotic fractions from probiotic bacteria display anti-inflammatory and anti-proliferative properties. We investigated whether a < 3 kDa fraction from *Limosilactobacillus fermentum* CECT5716 could resolve intestinal inflammation and thereby limit progression to colorectal tumorigenesis in the azoxymethane/dextran sulfate sodium (AOM/DSS) model.

Methods: Colitis-associated carcinogenesis was induced with the AOM/DSS, followed by oral administration of the < 3 kDa fraction. Mucosal inflammation and immune cell populations were characterised by molecular approaches and flow cytometry, and gut microbiota composition by sequencing. Tumour incidence, number and volume were assessed macroscopically, and tumour morphology, tissue organisation and epithelial proliferation (Ki-67) by histology and immunohistochemistry, together with markers of cell-cycle regulation and apoptosis.

Results: The < 3 kDa fraction dampened the chronic inflammatory response, downregulating pro-inflammatory signalling and reshaping mucosal immune populations toward a regulatory profile, while partially restoring gut microbiota homeostasis. This resolution of the inflammatory milieu was accompanied by preserved colonic architecture, fewer dysplastic lesions and reduced epithelial hyperproliferation (decreased Ki-67). Consistently, tumour incidence, number and volume were significantly reduced in treated AOM/DSS mice, in parallel with modulation of proliferative and apoptotic pathways.

Discussion/Conclusion: The < 3 kDa fraction from *L. fermentum* CECT5716 acts upstream of tumour formation, dampening the chronic mucosal inflammation and immune-microbial dysregulation that drive malignant transformation. This anti-inflammatory action translates into reduced epithelial hyperproliferation and tumour burden, positioning cell-free low-molecular-weight postbiotics as a rational preventive approach in colitis-associated colorectal cancer.

33. Video capsule endoscopy in immunological and Crohn's disease

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Introduction: Woman 50-years-old was examined and treated by the immunologist 5 years ago because of muscle pain and itching of the skin. Of previous diseases she has hypothyroidism. In physical examination her active adduction of upper arm was 60° and passively 90°. She was diagnosed polyarthritis vs. MCTD (RF+, CCP+, U1 RNP 77+). Treatment started with prednisone and methotrexate. After therapy failed new diagnosis was rheumatoid arthritis / MTD and in the mean time was conservative treated on the Department of surgery because of the subileus of the small bowel. The MR of small bowel and colon was performed and the results came normal. Therapy given was tocilizumab, prednisone and enterokoksib. She had side effects so it was changed to upadacitinib. After a year new side effects appeared and was switched to etanercept. After nine months patient had diarrhea and stomach cramps.

Methods: A colonoscopy was performed. In terminal ileum small ulcers were found and her fecal calprotectin was 316 mcg/g. I did video capsule endoscopy and small bowel was covered in small ulcers characteristic for Crohn's disease.

Results: Her therapy was switched to adalimumab but anti-ADA was 171 ng/ml, ADA concentration < 0.3 ug/ml and fecal calprotectine 393 mcg/g. At last she was given golimumab which resulted in Crohn's disease remission as well as improvement of her immunologic disease.

Discussion/Conclusion: This case shows that immunologic and inflammatory diseases has the same etiology and that video capsule endoscopy has a significant role in diagnosis of these disease.

34. Serum interleukin-10 accurately identifies histologic healing and deep remission in ulcerative colitis: A prospective biomarker study

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Introduction: Reliable blood biomarkers capable of identifying deep remission in ulcerative colitis (UC) remain an important unmet clinical need. Although histologic healing is increasingly recognized as a key therapeutic target, its assessment still relies on invasive endoscopy with biopsies. We investigated whether circulating interleukin-10 (IL-10) accurately reflects objective inflammatory activity and identifies patients achieving deep remission.

Methods: In this prospective single-center observational study, 137 consecutive adults with UC undergoing clinically indicated colonoscopy were enrolled. Serum IL-10 concentrations were measured by ELISA immediately before colonoscopy. Endoscopic activity was assessed using the Mayo Endoscopic Score, while histologic activity was evaluated using the Geboes score by blinded gastrointestinal pathologists. Deep remission was defined as the coexistence of endoscopic remission (MES ≤ 1) and histologic healing (Geboes < 2.0). Associations between serum IL-10 and disease activity were assessed using non-parametric analyses, ROC analysis, and multivariable Firth penalized logistic regression.

Results: Patients achieving deep remission demonstrated significantly higher serum IL-10 concentrations than those with persistent inflammatory activity (6.6 vs. 2.35 pg/mL, $p < 0.001$). Serum IL-10 showed a strong inverse association with both histologic and endoscopic disease activity and remained independently associated with deep remission after adjustment for age, sex, disease duration, disease extent, treatment category, and C-reactive protein (adjusted OR = 32.67, 95% CI: 10.73-99.44; $p < 0.001$). IL-10 accurately discriminated deep remission with an AUC of 0.947 (95% CI: 0.905-0.982), corresponding to 91.2% sensitivity and 94.2% specificity.

Discussion/Conclusion: Circulating IL-10 is strongly associated with histologic healing and deep remission in UC and provides excellent discrimination of objective inflammatory status. These findings support serum IL-10 as a promising non-invasive biomarker for disease monitoring and warrant external multicenter validation before routine clinical implementation.

35. Nutrition for special medical purposes improves the quality of life of patients with mild and moderate ulcerative colitis

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Introduction: Including nutrition for special medical purposes (NSMP) in the diet of patients with ulcerative colitis (UC) can help eliminate malnutrition and stabilize

their body weight. The aim is to investigate the effect of NSMP Priora-Forte on the quality of life (QoL) of patients with mild and moderate UC.

Methods: 18 patients with moderate and moderate UC were examined, of whom 10 (66.6%) men, 8 (44.4%) women, the average age was 43.61 ± 15.12 years. The condition of the patients was stable, according to the partial Mayo scale, mild activity was observed in 15 (83.3%) patients, moderate activity in 3 (16.7%). For the treatment of UC, patients received mesalazine and glucocorticoids in a maintenance dose. Patients were examined twice: before the use of Priora-Forte and after 6 weeks. Patients' body weight and body mass index (BMI) were assessed. The SCCAI and IBDQ questionnaires were used.

Results: During the initial examination, the body weight of UC patients was 61.11 ± 9.58 kg, BMI - 20.80 ± 3.46 kg/m². In 5 (27.78%) patients, BMI < 18 kg/m². According to the UC activity questionnaire, the SCCAI score was 5.61 ± 1.88 . The total initial QoL score was 140.60 ± 25.75 . According to the subscales, the score in the categories "intestinal symptoms" was 44.39 ± 9.04 , "systemic symptoms" - 34.89 ± 5.55 , "emotional state" - 42.50 ± 10.99 , "social functioning" - 18.83 ± 5.61 . The results obtained correspond to moderate violations of the QoL of the examined patients. After 6 weeks of using Priora-Forte, a moderate tendency was observed to increase the body weight of patients to (63.78 ± 8.90) kg, BMI - 21.67 ± 3.12 kg/m² ($p > 0.05$), as well as to decrease the activity of the UC according to the SCCAI (5.00 ± 1.45 ; $p > 0.05$). In 3 (16.67%) patients BMI < 18 kg/m² ($p > 0.05$). At the same time, we recorded an improvement in the QoL of UC patients according to the IBDQ, which was characterized by an increase in the total score (167.7 ± 9.58 ; $p = 0.0009$) and in the categories "intestinal symptoms" (57.61 ± 9.36 ; $p = 0.0001$), "systemic symptoms" (42.11 ± 3.62 ; $p < 0.0001$), "emotional state" (44.83 ± 11.45 ; $p > 0.05$), "social functioning" (23.56 ± 2.85 ; $p = 0.003$).

Discussion/Conclusion: Including Priora-Forte in the diet of UC patients of mild and moderate severity allows providing the necessary nutritional support and improving their QoL.

36. Early introduction of advanced therapy in Crohn's disease with perianal fistula according to the Hughes classification: A single-center retrospective study

Tsutomu Masuda (Ikoma, JP)

Introduction: Perianal fistulas are associated with poor prognosis in Crohn's disease (CD). However, the long-term clinical impact of early introduction of advanced therapy (AT) in CD patients with perianal fistulas classified as secondary lesions according to the Hughes classification remains unclear. In this study, early AT was defined as initiation within 6 months of CD diagnosis. We aimed to evaluate the long-term validity of early AT initiation in this high-risk population.

Methods: We conducted a single-center retrospective study of 15 consecutive CD patients with secondary perianal fistulas (Hughes classification) who received early AT. The median age was 29 years, and all patients were male, reflecting the

demographic characteristics of our treated cohort. At diagnosis, all patients had non-stricturing, non-penetrating behavior (B1). The median time from diagnosis to AT initiation was 4 months (range, 0–24). Clinical outcomes, behavioral progression, surgical interventions, and remission status were evaluated. The median duration of AT was 100 months (range, 13–234).

Results: During follow-up, no patients developed behavioral progression (B2/B3). Clinical remission and normalization of inflammatory markers, including leucine-rich alpha-2 glycoprotein, were achieved in all patients. No intestinal surgeries were required before or after AT initiation. Six patients (40%) underwent additional seton drainage after AT; however, these procedures were performed due to insufficient drainage following the initial surgery and not due to luminal disease exacerbation. Among patients receiving multiple AT agents (7/15), six switches were active (non-medical) switches.

Discussion/Conclusion: Early introduction of AT in CD patients with perianal fistulas (secondary lesion) was associated with sustained remission and absence of behavioral progression over long-term follow-up. These findings support the validity of early AT initiation in this high-risk population.

37. Disease duration, rather than current disease activity, is associated with increased cardiovascular risk in inflammatory bowel disease: A real-world cohort study

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Background: Patients with inflammatory bowel disease (IBD) have an increased cardiovascular (CV) risk compared with the general population, although disease-related determinants remain poorly defined. We aimed to identify IBD-specific factors associated with increased CV risk in a real-world cohort.

Methods: We retrospectively enrolled 281 consecutive patients with Crohn's disease (CD, n = 118) or ulcerative colitis (UC, n = 163) from two Italian tertiary referral centres. Patients with established atherosclerotic cardiovascular disease, diabetes with target-organ damage, or severe chronic kidney disease were excluded. CV risk was assessed using SCORE2 and SCORE2-OP. Demographic, clinical, laboratory and disease-related variables were collected. Disease remission was defined according to STRIDE II criteria. Univariable and multivariable logistic regression analyses identified independent predictors of increased CV risk.

Results: Overall, 154 patients (54.8%) had low-moderate and 127 (45.2%) high-very high CV risk. High-risk patients were older, more frequently male, smokers and hypertensive, and had higher BMI and a less favourable lipid profile (all $p < 0.05$). Disease duration was significantly longer in the high-risk group (16 vs. 10 years; $p < 0.01$). Clinical, endoscopic, histological, biochemical (PCR, faecal calprotectin) and transmural remission rates were similar between groups. High and very high CV risk patients were less frequently bio-experienced (49% vs. 68%, $p = 0.02$) and treated with advanced therapies (51% vs. 68%; $p = 0.04$). In CD, penetrating disease behaviour (Montreal B3) was more common in high-very high risk patients. Multivariable analysis identified longer disease duration (OR = 1.05/year, 95% CI: 1.02–1.07; $p < 0.01$) as an independent predictor of increased CV risk, whereas previous exposure to advanced therapies was independently associated with lower CV risk (OR = 0.56, 95% CI: 0.34–0.92). In CD, B3 phenotype independently predicted increased CV risk (OR = 3.70, 95% CI: 1.27–10.77, $p = 0.02$).

Discussion/Conclusion: Our findings suggest that cumulative inflammatory burden, rather than current disease activity, contributes to cardiovascular risk in IBD, while early and effective biologic intervention may help mitigate this risk.

38. Isolated esophageal Crohn's disease with recurrent oral aphthosis and giant esophageal ulcers: Diagnostic pitfalls and a case report

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Introduction: Esophageal involvement in Crohn's disease (CD) is rare, whereas isolated esophageal disease is an exceptionally uncommon presentation that may precede intestinal involvement by several years. In the absence of ileocolonic lesions, diagnosis is often delayed because infectious, autoimmune and inflammatory disorders share similar clinical, endoscopic and histopathological features. This case illustrates the diagnostic challenges posed by isolated esophageal CD and emphasizes the value of longitudinal reassessment.

Methods: A 23-year-old woman presenting with recurrent dysphagia, odynophagia, heartburn and oral aphthosis refractory to proton pump inhibitor therapy underwent repeated clinical, laboratory, endoscopic and histopathological evaluations over a five-year follow-up period. The diagnostic work-up included serial upper gastrointestinal endoscopies with biopsies, serological testing for cytomegalovirus (CMV) and herpes simplex virus (HSV), and ileocolonoscopy following the development of lower gastrointestinal symptoms.

Results: Initial upper gastrointestinal endoscopy revealed multiple irregular esophageal ulcerations, while biopsy specimens demonstrated chronic inflammatory changes without granulomas. Positive CMV and HSV IgG serology initially supported an infectious etiology, and antiviral therapy combined with corticosteroids and proton pump inhibitors resulted in only transient clinical improvement. During follow-up, recurrent episodes of severe odynophagia, extensive oral

aphthosis and progressive dysphagia occurred. The final relapse was associated with marked systemic inflammation (CRP 154.19 mg/dL, ESR 115 mm/h), leukocytosis, anemia (hemoglobin 8.39 g/dL) and rectal bleeding. Repeat upper gastrointestinal endoscopy demonstrated five giant esophageal ulcers, whereas ileocolonoscopy identified inflammatory ulcerative lesions involving the terminal ileum and right colon. Histopathological examination revealed non-caseating epithelioid granulomas and chronic transmural inflammation, confirming Crohn's disease with combined esophageal and ileocolonic involvement. Clinical remission was achieved following systemic corticosteroid therapy.

Discussion/Conclusion: Recurrent esophageal ulcerations associated with oral aphthosis should raise suspicion for Crohn's disease even in the absence of intestinal manifestations. Serial endoscopic assessment, clinicopathological correlation and prolonged follow-up are essential for establishing the diagnosis and avoiding therapeutic delay. Early recognition of this rare phenotype may facilitate timely initiation of appropriate therapy while carefully balancing immunosuppressive treatment in patients with concomitant herpesvirus seropositivity.

39. Inflammatory biomarkers and bone mineral density in women with inflammatory bowel disease: The role of leptin and high-sensitivity C-reactive protein

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Introduction: Inflammatory bowel disease (IBD) is associated with an increased risk of reduced bone mineral density (BMD) and fragility fractures through chronic systemic inflammation, enhanced osteoclast activity and alterations in bone remodeling. Leptin has been proposed as a potential modulator of bone homeostasis, although its biological role remains controversial. High-sensitivity C-reactive protein (hs-CRP), a marker of systemic inflammation, has been consistently associated with accelerated bone loss and reduced BMD. We aimed to evaluate the relationship between serum leptin, hs-CRP and BMD in women with and without IBD.

Methods: This case-control study included two age- and BMI-matched female cohorts. The IBD group comprised 23 women with Crohn's disease or ulcerative colitis (mean age 48.3 ± 1.6 years; BMI 24.6 ± 1.3 kg/m²), while the control group included 25 postmenopausal women with osteopenia or osteoporosis (mean age 50.1 ± 2.0 years; BMI 25.4 ± 1.2 kg/m²). Patients with obesity, diabetes mellitus, cardiovascular disease or thyroid dysfunction were excluded. BMD was assessed at the femoral neck by dual-energy X-ray absorptiometry (DXA). Serum leptin and hs-CRP levels were measured at baseline. Statistical significance was defined as $p < 0.05$.

Results: Among women with IBD, nine were premenopausal and fourteen were postmenopausal. Mean serum leptin concentrations were significantly higher

in premenopausal than in postmenopausal patients (13.1 vs. 7.5 ± 2.8 ng/mL, $p < 0.05$). Leptin levels in postmenopausal women with IBD did not differ significantly from those observed in the control group (5.5 ± 3.3 ng/mL). In the IBD cohort, four patients had normal BMD, ten had osteopenia and nine had osteoporosis; in controls, thirteen had osteopenia and eleven osteoporosis. hs-CRP levels were significantly elevated in the IBD group and independently associated with lower BMD, whereas no such relationship was observed in controls, highlighting the contribution of persistent systemic inflammation to skeletal deterioration in IBD.

Discussion/Conclusion: Chronic inflammation is a major determinant of bone loss in women with IBD. Elevated hs-CRP emerged as an independent predictor of reduced BMD. Lower leptin concentrations in postmenopausal women, irrespective of IBD status, may reflect estrogen-dependent regulation of leptin secretion rather than disease-specific mechanisms. These results suggest that hs-CRP may represent a clinically useful biomarker for identifying IBD patients at increased risk of osteoporosis, while the contribution of leptin to bone metabolism appears to be influenced by hormonal status.

40. *Kalanchoe pinnata* attenuates experimental colitis through restoration of intestinal barrier function

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Introduction: Disruption of the intestinal epithelial barrier is a key event in inflammatory bowel disease (IBD), driving persistent inflammation and disease progression. While current therapies primarily target immune responses, agents capable of simultaneously suppressing inflammation and restoring barrier integrity remain limited. We investigated whether a hydroethanolic leaf extract of *Kalanchoe pinnata*, a medicinal plant widely used in African traditional medicine, protects against experimental colitis through coordinated anti-inflammatory and barrier-preserving effects.

Methods: The extract was phytochemically characterized and evaluated for anti-inflammatory activity in LPS-stimulated RAW264.7 macrophages by assessing cytokine production. Therapeutic efficacy was investigated in dextran sulfate sodium (DSS)-induced murine colitis using disease activity index, histopathology, inflammatory cytokine expression, intestinal epithelial permeability, and Ki-67 immunofluorescence to assess epithelial proliferation.

Results: The extract contained abundant bioactive phytochemicals, including flavonoids and phenolic compounds. It significantly reduced IL-6 and TNF- α production in activated macrophages, demonstrating potent anti-inflammatory activity. In DSS-induced colitis, treatment reduced disease severity, preserved colonic architecture, decreased inflammatory cell infiltration, and restored intestinal epithelial barrier function, as demonstrated by fluorescence permeability

assays. Reduced Ki-67 expression further indicated attenuation of inflammation-associated epithelial hyperproliferation and improved mucosal homeostasis.

Discussion/Conclusion: *Kalanchoe pinnata* protects against experimental colitis by simultaneously suppressing intestinal inflammation and restoring intestinal epithelial barrier function. These findings identify restoration of intestinal epithelial barrier function as a key mechanism underlying its protective effects and support further investigation of this traditional medicinal plant as a barrier-protective candidate for inflammatory bowel disease.

41. Infections in patients with inflammatory bowel disease

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Introduction: Patients with inflammatory bowel disease (IBD) are at an increased risk of infections due to impaired immune response, disease activity, comorbidities, and the use of immunosuppressive therapy. The aim of this study was to determine the incidence and types of infections among IBD patients treated at the University Clinical Centre of Vojvodina, identify risk factors and evaluate the relationship between infections, therapeutic modality, and treatment outcomes.

Methods: A retrospective, single-center study followed 299 IBD patients for two years (2021–2023): 187 with Crohn's disease (CD) and 112 with ulcerative colitis (UC). Conventional therapy (mesalazine and/or immunomodulators [methotrexate (MTX) or azathioprine]) was administered to 72 patients, 227 patients received biologic therapy (anti-TNF agents or vedolizumab), alone or combined with immunomodulators. Demographics, comorbidities, infection types and outcomes were analyzed.

Results: Infections occurred in 93/299 patients (31.1%), accounting for a total of 100 infectious episodes. Rates did not differ significantly between patients with UC and CD (34.8% vs. 28.9%; $p = 0.282$). The most common viral infection was COVID-19 ($n = 40$), while the most frequent bacterial infections were sepsis of unknown origin ($n = 19$) and upper respiratory tract infections ($n = 12$). Infections were significantly more frequent in patients with extraintestinal manifestations (41.3% vs. 27.8%; $p = 0.029$), hepatobiliary diseases (58.8% vs. 29.4%; $p = 0.011$), and chronic kidney disease (63.2% vs. 29.0%; $p = 0.002$). No significant association was found between the infection incidence and therapy type ($p = 0.566$), nor were there significant differences in the incidence of viral ($p = 0.414$) or bacterial infections ($p = 0.262$) between the treatment groups. Mortality did not differ significantly between patients with and without infections (2/93 vs. 2/206; $p = 0.411$).

Discussion/Conclusion: Infections are common in patients with IBD. However, in this cohort, their occurrence was not significantly associated with either the type of IBD or the broadly defined therapeutic modality.

42. Quality of life in ulcerative proctitis is comparable to more extensive colitis and significantly affected by fecal incontinence and sexual distress: Results from the prospective SNAP-UP study

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Introduction: Ulcerative proctitis (UP) is associated with symptoms such as rectal bleeding, bowel urgency and fecal incontinence which may significantly impair daily functioning. However, the impact of these symptoms on quality of life (QoL) remains poorly characterized, and direct comparisons with QoL in more extensive ulcerative colitis (UC) are lacking.

Methods: Patients with active UP (endoscopic MAYO score ≥ 1 up to 15 cm beyond the anal verge) were prospectively enrolled in 7 Dutch (non-)academic hospitals from March to November 2025. Baseline clinical and demographical data were collected. Digital questionnaires were used to assess QoL (EQ-5D-5L), patient-reported disease activity (MIAH-UC), bowel urgency (uNRS), fecal incontinence (CCFIS) and sexual distress (FSDS). QoL (EQ-5D-5L utility score) was compared to a cohort of patients with active more extensive UC (fecal calprotectin ≥ 250 $\mu\text{g/g}$ and/or $\geq$ CRP 5mg/L) from the same region ($n = 142$) and a cohort of general Dutch adults ($n = 979$). Multivariable linear regression was used to identify risk factors for impaired QoL.

Results: A total of 108 patients were included (56% female, median age 45 years [IQR 30–58]), with a questionnaire response rate of 82%. Fifty-four were newly diagnosed with UP and 54 had a prior diagnosis (median disease duration 8 years [IQR 3–12]) of UP ($n = 24$) or more extensive colitis ($n = 30$). Endoscopic disease activity was mild in 44 (41%), moderate in 54 (50%) and severe in 10 (9%) patients; median fecal calprotectin was 367 $\mu\text{g/g}$ (IQR 180–1089). Patients reported an impaired QoL, with mean EQ-5D-5L VAS and utility scores of 69 (SD 16.9) and 0.79 (SD 0.19), respectively. QoL (EQ-5D-5L utility score) in patients with active UP was comparable to patients with active left-sided or pancolitis ($p = 0.77$) and significantly lower than in general Dutch adults ($p = 0.001$). Median patient-reported disease control (MIAH-UC domain 1, range 0–10) was 6 (IQR 4–7). Clinical symptoms were frequent, with 71% ($n = 63$) and 27% ($n = 24$) reporting a bowel urgency score of ≥ 5 and ≥ 8 , respectively (uNRS range 0–10). Fecal incontinence affecting daily life at least weekly was reported by 25% ($n = 22$). Twenty-four percent ($n = 21$) experienced sexually related personal distress (FSDS ≥ 15). In multivariable analyses, increased fecal incontinence ($\beta -0.019$, $p = 0.011$) and sexual distress ($\beta -0.008$, $p < 0.001$) were independently associated with reduced QoL, adjusting for age, sex, disease duration and endoscopic disease severity.

Discussion/Conclusion: Patients with UP experience a significant symptom burden and report a reduced QoL that is comparable to patients with more extensive UC.

Fecal incontinence and sexual distress are key contributors to QoL impairment and should be routinely assessed in clinical practice. Structured symptom assessment and targeted interventions may facilitate more holistic, patient-centered care and improve QoL outcomes.

43. Clinical utility and cost-effectiveness of reactive therapeutic drug monitoring in anti-TNF-treated patients with inflammatory bowel disease: A real-world experience

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Introduction: Therapeutic drug monitoring (TDM) is increasingly used to guide the management of inflammatory bowel disease (IBD) patients treated with anti-TNF agents, experiencing primary non-response or secondary loss of response. We aimed to evaluate the clinical impact of reactive TDM and explore its cost-effectiveness in routine clinical practice.

Methods: We performed a retrospective observational study at a tertiary IBD referral centre. Patients with Crohn's disease (CD) or ulcerative colitis (UC) receiving infliximab (IFX) or adalimumab (ADA), who underwent reactive TDM between 2022 and 2025, were included. Demographic and clinical characteristics were collected, including indications for TDM, drug levels, anti-drug antibodies, TDM-driven interventions, and 12-month major adverse outcomes. A preliminary cost-effectiveness analysis compared 16 patients undergoing IFX optimisation or switch/swap guided by TDM with 16 sex-, age-, and disease-matched controls undergoing IFX treatment modification without TDM.

Results: A total of 123 patients were enrolled (67 CD, 56 UC); 80 treated with IFX and 43 with ADA. Among IFX-treated patients, 52/80 (65%) required a TDM-guided intervention, most commonly following combined clinical and biochemical worsening (40%). The main findings were subtherapeutic drug concentrations (61.5%) and positive anti-drug antibodies (17%). TDM-guided management resulted in dose optimisation in 54% of cases and switch/swap in 29%. At 12 months, 74% of patients remained free from major adverse outcomes.

Among ADA-treated patients, 27/43 (63%) required a TDM-guided intervention, most frequently due to biochemical worsening (52%). Subtherapeutic and supratherapeutic drug concentrations were equally represented (42% each), while anti-drug antibodies were detected in 11.5%. TDM-guided interventions included dose optimisation in 33% and switch/swap in 60% of cases. At 12 months, 77% of patients remained free from major adverse outcomes. In the preliminary cost-effectiveness analysis, TDM-guided optimisation was associated with a significantly shorter time to treatment adjustment than standard management (median 38.5

vs. 166 days; $p < 0.01$) and lower therapy-related costs before optimisation (€278 vs. €784; $p = 0.04$). TDM-guided switch/swap strategies were also associated with shorter time to treatment change (57 vs. 119 days) and lower pre-switch/swap costs (€237 vs. €668), although these differences were not statistically significant. Numerically fewer 12-month adverse outcomes were observed among patients managed according to TDM-guided strategies than among matched controls (30% vs. 45%).

Discussion/Conclusion: Reactive TDM substantially influenced therapeutic decision-making in anti-TNF-treated IBD patients. IFX monitoring more frequently resulted in dose optimisation, whereas ADA monitoring more commonly led to treatment switch/swap. TDM-guided management enabled earlier therapeutic optimisation and reduced treatment-related costs, supporting its integration into routine IBD care.

44. The effect of milk-derived extracellular vesicles on intestinal epithelial cells of IBD patients

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Introduction: The pathogenesis of Inflammatory Bowel Diseases (IBD) is considered to be multifactorial, comprising factors such as immune dysregulation, environmental influences, microbial dysbiosis, and genetic predispositions of the host. In this regard, the contribution of factors associated with intestinal epithelial cells (IECs) has been less studied.

Milk-derived exosomes (MDEs) are nanovesicles that transport microRNA (miRNA). We demonstrated that MDEs are internalized by IECs and impart a therapeutic and anti-inflammatory effect in a murine model of colitis. This study aimed to determine the impact of MDEs on human IECs

Methods: We have employed organoids derived from human intestinal biopsies from IBD patients and healthy controls. Gene and miRNA expression were analyzed by qRT-PCR. Proliferation was analyzed by immunofluorescent staining Ki67

Results: We demonstrated that milk-derived exosomes (MDEs) were internalized by the organoids, altering their miRNA profile. The expression of miRNA that are abundant in MDEs, such as miR-148, was higher in organoids treated with MDEs compared to untreated ones (10.44 ± 0.17 vs. 4.06 ± 0.76 , respectively). DNMT1, a target gene of miR-148, was downregulated in MDE-treated organoids (from 0.498 ± 0.037 to 0.064 ± 0.011). Additionally, other MDE-associated miRNAs showed increased levels in treated organoids: Let-7a (2.05 ± 0.06 vs. 1.37 ± 0.025) and miR-30 (7.85 ± 0.51 vs. 5.44 ± 0.9 , respectively). Incubation with MDEs in the culture medium of intestinal organoids induced enhanced epithelial cell proliferation, as evidenced by significantly increased Ki67 staining. Moreover, the expression of β -catenin, which is involved for intestinal epithelium integrity and barrier function, was upregulated in organoids treated with MDEs in comparison to untreated controls.

Discussion/Conclusion: Results from this study offer preliminary new preclinical tool to analyze the role of MDEs on human IECs and intestinal homeostasis and to understand the clinical applications of MDE. A deeper understanding of the mechanistic effect of MDEs on the IECs can help to target and potentiate the therapeutic effect of this non-toxic natural nutraceutical component, adding MDEs to our armamentarium to fight inflammatory bowel diseases.

45. Anorectal manometry reveals a high burden of anorectal dysfunction in ulcerative colitis patients in remission: A prospective study

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Introduction: Despite achieving endoscopic remission, many ulcerative colitis (UC) patients continue to experience functional anorectal symptoms that impair quality of life. This study aimed to characterize anorectal function using high-resolution anorectal manometry (HRAM) and the London Classification in UC patients with mucosal healing, comparing them to healthy reference values

Methods: A prospective, single-center study (March 2022 – December 2024) included 57 UC patients in endoscopic remission (Mayo Score ≤ 1), both symptomatic ($n = 38$) and asymptomatic ($n = 19$). HRAM was performed, and anorectal disorders were classified according to the London Classification. Manometric parameters were converted to Z-scores for gender-specific comparison with healthy norms. Associations with demographic, clinical, and histological factors were analyzed.

Results: Fifty-seven patients were included (49% female, median age 47.4 years). Symptomatic patients were older ($p = 0.037$), had higher BMI ($p = 0.004$), and significantly lower SIBDQ scores ($p < 0.001$). Only 10.5% of patients exhibited normal manometric results. The most prevalent categories of abnormalities were disorders of rectal sensation (71.9%), disorders of anal tone and contractility (64.9%), and disorders of rectoanal coordination (45.6%). Univariable analysis showed that histologically active inflammation was significantly associated with dyssynergia ($p = 0.029$) and rectal hypersensitivity ($p = 0.013$). Compared to healthy norms, both sexes exhibited higher mean anal resting pressure and higher rectal pressure during push ($p < 0.001$). Notably, men with UC exhibited “female-like” patterns, characterized by lower anal squeeze pressure ($p = 0.017$) and higher rectoanal gradients ($p = 0.002$) compared to male norms.

Discussion/Conclusion: Anorectal dysfunction is highly prevalent in UC patients despite endoscopic remission. Histologic activity remains a key factor associated with sensory and coordination disorders. These findings underscore the clinical need for objective functional assessments to optimize patient management and avoid inappropriate treatment escalation

46. Mucosa-adherent pathobionts as candidate targets and progression markers in Crohn's disease

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Introduction: Crohn's disease (CD) is a chronic, relapsing inflammatory disorder in which gut dysbiosis contributes to onset and progression. Because microbial characterisation in clinical practice mostly relies on faeces, it remains unclear whether the luminal community reflects the mucosa-adherent microbiota that interacts with the inflamed epithelium. We compared faecal and mucosa-associated microbiota in CD patients to determine which compartment captures disease-relevant dysbiosis and predicts disease evolution.

Methods: In a prospective study, fifteen colonic mucosal biopsies from damaged and healthy areas and paired stool samples were collected at the baseline visit. Following DNA extraction, the microbiome was sequenced on the Illumina MiSeq platform and analysed with bioinformatic tools, including correlation with clinical status.

Results: Microbial profiles segregated by sample source. Faeces were enriched in *Prevotella*, whereas *Shigella* and *Lachnospiraceae* were increased across the colonic mucosa; the damaged mucosa additionally showed higher *Lachnospiraceae* and, specifically, *Citrobacter europaeus*. Notably, faecal microbiota showed no significant association with clinical status. In contrast, enrichment of *Shigella* and *Citrobacter* in the damaged mucosa correlated positively with disease duration and extension.

Discussion/Conclusion: In CD, disease-relevant dysbiosis is confined to the mucosa-adherent community and is largely missed by faecal profiling. Mucosal pathobionts, particularly *Shigella* sp. and *Citrobacter europaeus*, mark a more extensive, longer-standing disease course and represent candidate targets for monitoring evolution and developing mucosa-directed therapies.

47. A non-invasive faecal microbial signature associated with endoscopic postoperative recurrence in Crohn's disease

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Introduction: Postoperative recurrence (POR) after ileocaecal resection remains a major unmet need in Crohn's disease (CD), and endoscopic surveillance—the current standard for its detection—is invasive and poorly suited to repeated monitoring. Gut dysbiosis is a recognised driver of CD, and the microbial community re-establishing after surgery may condition whether inflammation recurs. We prospectively evaluated whether faecal microbiota composition and diversity, obtained non-invasively, are associated with endoscopic POR and could support risk stratification after surgery.

Methods: Forty-five patients with CD undergoing ileocaecal resection were prospectively enrolled and faecal samples collected. Microbial composition was determined by 16S rRNA gene sequencing; alpha diversity, beta diversity, taxonomic composition and differential abundance were analysed and correlated with clinical variables. Endoscopic recurrence was graded by the Rutgeerts score, and patients classified as no recurrence (NR, i0–i2a) or severe recurrence (SR, ≥ i2b).

Results: Faecal microbial profiles differed between patients who developed severe endoscopic recurrence and those who did not. Alpha diversity was significantly reduced in SR patients ($p < 0.05$), indicating impoverished microbial richness in those destined to recur, and Bray–Curtis PCoA showed separation of NR and SR faecal communities. These differences were reflected in the phylum-level composition and, more specifically, in differential-abundance analysis as characteristic of patients remaining in remission, defining a stool-detectable dysbiotic signature associated with recurrence.

Discussion/Conclusion: A dysbiotic signature detectable in stool after ileocaecal resection is associated with severe endoscopic recurrence in Crohn's disease. Because it requires only a faecal sample, this approach could complement clinical risk factors to stratify patients after surgery, help select candidates for early prophylaxis, and offer a repeatable, non-invasive means of monitoring recurrence risk between endoscopic assessments.

48. Novel therapeutic target in IBD: Modulation of mast cells

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Introduction: Inflammation in inflammatory bowel disease (IBD) is a complex process involving multiple immune cell populations, among which mast cells emerge as key, though largely unexplored, players. This severe chronic inflammation constitutes the main pathogenesis driving progression to colitis-associated colorectal cancer (CACC). Functional modulation of mast cells can dramatically influence disease progression. Despite the controversy surrounding the dual

role of mast cells, capable of promoting both pro-tumor and suppressive effects, their modulation stands out as a key axis for controlling the intestinal inflammatory microenvironment before neoplastic transformation begins. Therefore, reprogramming mast cells before neoplasia represents a promising therapeutic approach. This study evaluates the potential of the nutraceutical propyl-propane-thiosulfonate (PTSO) to redirect mast cells toward an immunoregulatory and anti-tumor phenotype in IBD.

Methods: To evaluate this strategy, in vivo and in vitro studies were combined. In vivo, a murine model combining severe IBD prior to the onset of CRC with mast cell deficiency was established using *ckit*^{-/-} knockout mice (AOM/DSS-*ckit*^{-/-} model) along with wild-type (WT) mice. To simulate the progression of IBD to cancer, the effect of PTSO administration (1 mg/kg) was analyzed by assessing macroscopic clinical inflammation along with tumor development via colonoscopy. In vitro, the impact on tumor cell growth was evaluated by culturing human colorectal cancer cells (HCT116) in HMC1.2 mast cell conditioned medium treated with PTSO, along with analysis of surface marker modulation and β -hexosaminidase release.

Results: Analysis of the in vivo model revealed that the absence of mast cells in deficient mice (CAC-*ckit*^{-/-}) significantly reduced the severity of inflammatory symptoms and the Disease Activity Index (DAI) during colitis cycles, compared to the wild-type group (CAC-WT). This demonstrates that the unmodulated presence of mast cells amplifies intestinal inflammation. In this context, pharmacological modulation of mast cells with PTSO exerted potent control over the inflammatory phase, drastically reducing the severity of colitis in both groups and restoring the colon's weight-length ratio. Clinically, this attenuation of inflammation prevented oncogenic progression, resulting in a significant reduction in tumor number, volume, and maximum diameter. At the cellular level, PTSO modulated the mast cell phenotype by significantly decreasing the expression of the surface receptors MRGPRX2, CD63, and Fc ϵ RI, while markedly increasing β -hexosaminidase-producing. As a direct consequence of this immune reprogramming, the conditioned environment of mast cells exposed to PTSO induced a drastic reduction in colony formation and cell viability of HCT116 tumor cells.

Discussion/Conclusion: Mast cells play a highly modifiable pathogenic role during the chronic inflammatory phase of IBD, prior to the onset of colitis-associated colorectal cancer. Reprogramming their phenotype with PTSO effectively resolves severe colitis and transforms the inflammatory microenvironment into an immunologically active and protective environment.

49. Obesity-associated dysbiosis aggravates colitis-associated colorectal cancer by amplifying mucosal inflammation

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Introduction: Obesity is an established risk factor for colorectal cancer (CRC), and both conditions converge on chronic low-grade inflammation and gut dysbiosis. In colitis-associated colorectal cancer (CAC), sustained mucosal inflammation precedes and drives epithelial transformation, making this continued damage critical for CAC development. We investigated whether obesity-associated dysbiosis aggravates this pre-neoplastic inflammatory process, and tested its causal role by transferring the obese microbiota into microbiota-depleted recipients.

Methods: C57BL/6 mice were randomized to a standard diet (SD) or a high-fat diet (HFD) and subsequently subjected to CAC induction with azoxymethane (10 mg/kg) followed by three cycles of 2% dextran sulfate sodium in drinking water. In a second assay, feces from lean and obese donors were transplanted into microbiota-depleted mice (ceftriaxone 400 mg/kg/day, 5 days) undergoing the same CAC protocol. Colonic inflammation was monitored by the disease activity index (DAI), histology, flow cytometry, Western blot, and RT-qPCR; tumor burden was assessed by colonoscopy.

Results: HFD-fed mice showed an exacerbated colitic response, with higher DAI, mucosal damage, upregulated colonic pro-inflammatory mediators (COX-2, IL6, IL17a, IL23a) and increased CD11b+ myeloid cell infiltration compared with SD-fed animals. This intensified inflammatory milieu was accompanied by significantly greater cell proliferation and tumor burden, consistent with inflammation-driven tumor promotion. Sequencing confirmed marked dysbiosis in HFD-fed mice. To determine whether obesity-associated dysbiosis was causally involved in this inflammation and tumor development, fecal microbiota transplantation (FMT) was performed. Recipients of obese microbiota developed enhanced inflammation followed by increased tumor burden, reproducing the aggravated disease course in the absence of any dietary challenge.

Discussion/Conclusion: Obesity-associated dysbiosis aggravates neoplasia by amplifying the chronic mucosal inflammation and proliferative signaling that precede tumor development in CAC, an effect sufficient to be transferred to naïve recipients. These findings position the gut microbiota as a modifiable driver of the inflammatory phase of colorectal carcinogenesis and support microbiota-targeted strategies aimed at interrupting the inflammation-to-neoplasia sequence.

50. Clinical impact of *Clostridioides difficile* infection on long-term therapeutic management in inflammatory bowel disease

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Introduction: Gastrointestinal infections frequently complicate the clinical course of inflammatory bowel disease (IBD) and may exacerbate intestinal inflammation, making disease management more challenging. Among infectious agents, *Clostridioides*

ridioides difficile represents one of the most clinically significant pathogens because of its association with severe disease activity and poor prognosis. This study investigated the prevalence of enteric infections during IBD exacerbations and evaluated their influence on long-term therapeutic strategies, with particular attention to biological treatment.

Methods: A retrospective study was conducted on 102 consecutive patients with Crohn's disease or ulcerative colitis admitted for an IBD flare at a tertiary referral center in Southern Italy between January 2020 and September 2024. Stool samples were systematically analyzed for bacterial, viral, and parasitic pathogens. Demographic, clinical, laboratory, and treatment data were collected at hospitalization and after 12 months of follow-up. Multivariable analyses were performed to identify factors associated with treatments ($p < 0.05$).

Results: Among 102 patients hospitalized for an IBD flare, 19% had a documented gastrointestinal infection, whereas 81% had no identifiable enteric pathogen. Clostridioides difficile accounted for 58% of all infections, while the remaining cases were caused by enteropathogenic or enterotoxigenic Escherichia coli. At baseline, patients with and without gastrointestinal infections showed comparable demographic characteristics, IBD subtype, disease duration, inflammatory biomarkers, disease activity, and therapeutic management. Left-sided ulcerative colitis was more frequent in infected patients (36% vs. 12%, $p = 0.03$). After 12 months of follow-up, disease activity and laboratory parameters remained similar between groups. However, patients with a baseline gastrointestinal infection required advanced therapy significantly more often than those without infection (63% vs. 31%, $p = 0.02$). Biologic use increased from 10% at baseline to 63% during follow-up among infected patients, with almost all treatment escalations occurring in individuals with C. difficile infection. This was particularly evident in ulcerative colitis, whereas a similar trend in Crohn's disease did not reach statistical significance. No recurrent gastrointestinal infections or IBD-related surgical interventions were recorded during follow-up. Multivariable logistic regression demonstrated that baseline C. difficile infection independently predicted the need for advanced therapy after 12 months (OR = 3.5, 95% CI: 1.24-10.98; $p = 0.02$).

Discussion/Conclusion: Gastrointestinal infections, especially Clostridioides difficile, appear to adversely influence the clinical course of IBD and are associated with an increased likelihood of therapeutic escalation. Early identification of infectious complications may facilitate personalized treatment decisions and improve long-term disease management.

51. Exploring the benefits of a joint surgical-inflammatory bowel disease clinic in enabling timely surgical intervention and cohesive multidisciplinary working

Glyn Scott (Margate, GB), **G. Preziosi** (Margate, GB)

Introduction: Patients with inflammatory bowel disease (IBD) frequently experience complex disease trajectories requiring coordinated medical and

surgical input. Traditional models, where surgical and gastroenterology reviews occur in isolation, can contribute to delays in decision-making, fragmented communication, and inconsistent treatment planning. Establishing a joint surgical-IBD clinic offers an opportunity to streamline care, enhance multidisciplinary collaboration, and optimise timely access to surgical intervention.

Methods: A service evaluation was conducted after launching a joint clinic involving gastroenterologists, colorectal surgeons, IBD nurse specialists, dietitians, and radiology support. Clinic processes, referral pathways, waiting times, and patient feedback were evaluated using mixed-method analysis and multidisciplinary team (MDT) review.

Results: The joint clinic enabled earlier identification of patients requiring surgical review and reduced the interval between referral and specialist consultation. Real-time collaborative discussions allowed consistent decision-making, streamlined treatment planning, and improved optimisation of patients before surgery. Staff reported enhanced communication and reduced duplication of appointments, while patient feedback highlighted improved understanding of treatment options and greater confidence in shared clinical decisions.

Discussion/Conclusion: The joint surgical-IBD clinic demonstrated clear benefits in promoting timely surgical intervention, improving multidisciplinary communication, and enhancing the overall patient experience. By integrating expertise into a single coordinated pathway, the clinic strengthens continuity, reduces inefficiencies, and supports holistic, patient-centred management of complex IBD. This model represents an effective and sustainable approach to modern IBD care and offers a framework for wider adoption across services seeking to improve multidisciplinary collaboration and clinical outcomes. The findings highlight the significant value of joint surgical-IBD clinics in enhancing timeliness, communication, and quality of care. The model aligns with broader initiatives emphasising integrated care, MDT collaboration, and value-based healthcare. The reduction in delays to surgical review is particularly important, as unmet surgical need can worsen outcomes, increase emergency surgery rates, and negatively affect quality of life. The clinic structure also supports shared decision-making—a critical element of modern IBD care. While the model was well received, it requires coordinated scheduling, dedicated staffing, and strong collaborative culture. Scalability may vary by institution size and resource availability.

52. Exploring the benefits of initiating a student nurse placement within the gastroenterology nurse team

Glyn Scott (Margate, GB), B. Abreu (Margate, GB)

Introduction: Gastroenterology nursing is a highly specialised field requiring advanced assessment skills, knowledge of long-term condition management, and strong multidisciplinary collaboration. With increasing service pressures and a growing need for specialist nurses, it is essential to attract and develop future talent. Introducing a structured student nurse placement within the gastroenter-

ology nursing team supports workforce development, enhances care quality, and strengthens the learning culture within the service.

Methods: The initiative involved designing a structured placement programme that provided students with supervised experience in outpatient clinics, infusion services, IBD nurse-led pathways, endoscopy liaison, and patient education. A competency framework was created to guide learning objectives, supported by regular supervision, reflective discussions, and mentorship. Feedback mechanisms—including midpoint and final placement evaluations—were introduced to assess student progress and gather insights about the placement experience. Collaboration with the university ensured alignment with curriculum requirements and professional standards.

Results: Student nurses reported increased confidence in managing gastroenterology presentations, improved communication skills, and greater understanding of chronic disease pathways such as IBD. The nursing team observed enhanced staff engagement, with nurses expressing satisfaction in mentoring and contributing to future workforce development. Patients benefitted from increased staff presence, improved continuity of care, and more time for education and support. Feedback indicated that students brought fresh ideas, supported service improvement, and helped streamline clinic flow. Early outcomes suggest that the placement is an effective recruitment pipeline, with several students expressing interest in pursuing gastroenterology roles post-qualification.

Discussion/Conclusion: Initiating a student nurse placement within the gastroenterology nursing team has demonstrated clear benefits for students, staff, and patients. The structured approach supports high-quality learning, encourages reflective practice, and contributes to the development of future specialist nurses. The placement enhances service capacity, promotes person-centred care, and fosters a culture of innovation within the team. Building on these positive results, the programme can be expanded and refined to further strengthen specialist nursing services and ensure a sustainable workforce for the future.

53. Utilising advanced therapies in inflammatory bowel disease: Real-world experience from a UK centre

Glyn Scott (Margate, GB), B. Abreu (Margate, GB)

Introduction: Biologic therapy is a crucial aspect in the management of inflammatory bowel disease (IBD). Care equity and outcomes may be influenced by variability in prescription practices among clinicians.

This study analysed the adoption of biologics among IBD patients in a large NHS Trust, comparing prescribing patterns across consultants to national and international standards.

Methods: We examined retrospectively 910 IBD patients' electronic data (464 females and 446 males). Age information was available for 867 patients (mean age: 47.7 years, median age: 46 years). 552 patients had Crohn's disease (CD), 351

ulcerative colitis (UC), and 7 had indeterminate colitis. Biologics and small-molecule medications included anti-TNF α (adalimumab, infliximab IV/SC, golimumab), anti-integrin (vedolizumab IV/SC), anti-IL12/23 (ustekinumab), anti-IL23 (risankizumab), JAK inhibitors (tofacitinib, upadacitinib, filgotinib), and anti-IL23p19 (mirikizumab). Data were stratified by sex, disease, and prescriber. Chi-square tests and coefficient of variation (CV) for inter-consultant prescribing variability were employed in statistical analysis.

Results: Local adoption mirrored national proportions, with adalimumab accounting for 32% and infliximab for 28% of biologic prescriptions, according to UK-wide audit statistics (BSG Biologic Audit, 2023). The observed shift toward subcutaneous infliximab and vedolizumab is consistent with global trends that support self-administration and service efficiency. Similar findings have been reported in recent European cohorts about female preponderance in IL23/IL12 therapy (ECCO Registry, 2024). The relatively high uptake of upadacitinib reflects early Trust adoption of oral JAK inhibitors compared with the approximately 3% national average.

Discussion/Conclusion: Although there is a substantial variability between consultants, the adoption of biologics within this large NHS Trust is consistent with national and international prescribing trends.

The results corroborate the need for multidisciplinary assessment and standardization of biologic initiation pathways in order to optimize equality and consistency in advanced IBD treatment.

54. Utilising an inflammatory bowel disease dashboard to record the workload of the IBD team enabling them to build a fully resourced service

Glyn Scott (Margate, GB), **B. Abreu** (Margate, GB)

Introduction: This initiative was designed to demonstrate to the divisional senior management team the importance of collecting data to demonstrate the activity of the Inflammatory Bowel Disease Nursing Team. The divisional team were unaware of the increased workload and activity of the team resulting in a higher demand for the team. The IBD Dashboard Data System was developed to account for the activity of the team and could be used for future business planning and ensuring the delivery of a safer IBD service. This project ensured that the senior management team were always aware of the increased activity of the team.

Methods: This was developed over a number of years and we were able to test the data collected over this period to provide the data required to increase staffing numbers. Key performance indicators were set for nurses to collect weekly. This included number of patients with Crohn's disease, ulcerative colitis, other patients seen, DNA rates, numbers of staff taught, patients prepared for biologics or immuno-modulator therapy, number of helpline calls and time taken over the call, ward patients seen and number of prescriptions prepared by the nurses. We discussed this project with the senior divisional management and have utilised this data at local PCN meetings with GP's and commissioners and within the Trust

Results: At the start of the project the staffing numbers was 2.6 wte band 7 nurses with no designated administration support for the team. According to Crohn's & Colitis UK the required staffing numbers for our catchment population was 7.5 wte nurses, which meant we were drastically under-resourced. We were able to utilise the data provided to convene a meeting with key stake holders. This meeting focussed on the data provided and reviewing the workload. To enable the team to provide a safe service, staffing numbers and job plans were reviewed. A case mix analysis was undertaken to provide actual patient to nurse ratios was undertaken and a gap analysis demonstrated more staff were needed. We have had an increase in nursing numbers including a biologics nurse, all nurses now have a dedicated secretary and now have an amazing IBD Coordinator.

Discussion/Conclusion: To summarise, an IBD data dashboard improves patient care by providing better insights, enabling personalized treatment, improving coordination among healthcare providers, and facilitating research. This project enabled the team to demonstrate the increased activity of the IBD team and that this data could be utilised to develop and expand the service. The service is now better funded and this project could be transferrable to any speciality including the hepatology or location. This project has been shared with other Trusts within the UK to enable them to grow their IBD nursing team. However with adequate staffing numbers there is still a way to go before we hit the number required.

55. Clostridium difficile infection in patients with inflammatory bowel disease: A comparative analysis before and after the COVID-19 pandemic

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Introduction: Clostridium difficile (C. diff) infection is a major cause of hospital-acquired diarrhoea, with rising incidence, particularly among patients with inflammatory bowel disease (IBD). This study aimed to describe the clinical characteristics and outcomes of hospitalised IBD patients with C. diff infection, comparing 2017–2020 (pre-pandemic) and 2021–2024 (post-COVID-19 pandemic).

Methods: We retrospectively analysed 59 hospitalised IBD patients with C. diff infection. Demographic data, disease characteristics, prior and in-hospital treatments, length of stay, and clinical outcomes were recorded. Comparative analyses between the two periods were conducted, and factors associated with prolonged hospitalisation were evaluated using multivariate analysis.

Results: C.diff-related hospitalisations increased fivefold post-pandemic (49 vs. 10 patients). Disease characteristics were similar, although patients were slightly younger in the latter period. Overall, 64% were male, mean age 43 years. Ulcerative colitis (UC) was the predominant subtype (75%). In 13 patients (19%), IBD and C. diff infection were diagnosed concurrently. Prior treatments included proton

pump inhibitors (n = 5), antibiotics (n = 9), mesalazine (n = 23), corticosteroids (n = 10), immunosuppressants (n = 11), and biologics (n = 22; 37%), including anti-TNF, anti-integrin, anti-IL-12/23, JAK inhibitors, and combination therapies. All patients received vancomycin; fidaxomicin was given in 44% of cases, and tigecycline in five severe cases. Combination therapy was reserved for the most severe infections. No patient required surgery. Re-hospitalisation for recurrent *C. diff* occurred in 16 patients. Mean length of stay was 17 days, longer in UC than Crohn's disease ($p < 0.05$). Sex, use of PPIs, antibiotics, or immunosuppressive therapy did not significantly affect length of stay. Modification of IBD therapy post-infection was required in 26 patients and was associated with prolonged hospitalisation (+9.4 days, $p = 0.025$). Multivariate analysis identified age and IBD subtype as the only independent predictors of prolonged hospitalisation.

Discussion/Conclusion: A substantial post-pandemic increase in *C. diff*-related hospitalisations among IBD patients was observed. While the underlying mechanisms remain uncertain, the COVID-19 pandemic and increased antimicrobial use may have contributed. Ulcerative colitis and older age were associated with poorer outcomes and longer hospital stays.

56. Cytoprotective therapy as an important component of increasing the effectiveness of complex treatment of ulcerative colitis

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Introduction: The effect of enemas with rebamipide in the treatment of mild and moderate cases of distal hormone-resistant or hormone-dependent active ulcerative colitis (UC) is known. However, the effectiveness of the new flavonoid Eupatilin, which has anti-inflammatory and antioxidant effects, in complex therapy of UC has not been sufficiently studied.

The aim of the study is to investigate the effect of oral administration of Eupatilin on the state of the cytokine profile and free radical metabolism in patients with ulcerative colitis of mild and moderate severity.

Methods: 32 UC patients were examined, in whom 24 (75%) had a mild, 8 (25%) moderate degree of activity according to the Mayo scale. All patients were divided into 2 groups: I (n = 14) basic therapy (mesalazine and glucocorticoids in maintenance doses), II (n = 18) – on the background of basic therapy Eupatilin 60 mg 3 times a day for 56 days. In order to identify an imbalance in the cytokine profile, the level of IL-4, IL-8, γ -IFN and TNF- α was determined. The state of free radical oxidation was assessed by the concentration of oxidatively modified proteins (OMP) and nitrites in the blood serum.

Results: Against the background of treatment, the content of OMP in patients of group I decreased by 16%, in group II – by 38% ($p < 0.05$). The concentration of nitrites in the blood serum decreased in group I by 1.15 times, in group II by 1.4 times ($p < 0.05$). On the 56th day of treatment, decrease in the concentration of IL-4 in the blood serum was noted by 1.3 times, in group II – by 1.5 times ($p < 0.05$). A

similar trend was observed regarding changes in the content of IL-8: a decrease in its concentration by 1.3 and 1.6 times ($p < 0.05$), respectively. The concentration of γ -IFN after treatment also decreased in groups I and II by 1.3 and 1.5 times ($p < 0.05$).

Discussion/Conclusion: The use of Eupatilin against the background of basic therapy in UC patients increases the antioxidant capabilities of the body and helps reduce systemic inflammation. The obtained data indicate the feasibility of including new cytoprotectors in the complex treatment of UC patients.

57. Soluble urokinase plasminogen activator receptor (suPAR) plasma levels in relation to other hemostatic parameters in patients with ulcerative colitis

Antoni Stadnicki (Sosnowiec, PL)

Introduction: Soluble urokinase plasminogen activator receptor (suPAR) exert pro-inflammatory functions. Additionally suPAR as part of the urokinasase plasminogen system activates fibrinolysis, and it may be inactivated in plasma by generation of thrombin and thrombomodulin. Resent reports indicated suPAR as biomarker for different entities of chronic inflammatory diseases, however its significance in IBD is not established. This study aims to characterize plasma suPAR levels in patients with ulcerative colitis (UC).

Methods: The plasma levels of suPAR, soluble thrombomodulin (sTM, an indicator of endothelial injury), prothrombin fragments (F1+F2, a marker of thrombin generation), and CRP were measured in 20 patients with active UC, 16 patients with inactive UC, and 20 healthy controls.

Results: The levels of suPAR were moderately higher in active UC patients (median: 3.2 ng/ml) as compared with controls (2.2), but the difference between groups did not reach statistical significance. The levels of suPAR in inactive UC patients (2.7) and controls were similar. In contrast sTM levels in patients with active UC (median: 19.5 ng/ml) as well as in patients with inactive UC (14.2) were significantly higher $p < 0.05$ as compared with controls (9.5). Significant elevation ($p < 0.01$) of F1 + 2 was found in patients with active UC (median: 1.96 nM), but not in patients with inactive UC (1.26 nM) as compared with controls. No correlation was found between suPAR level and CRP, sTM as well as F1+2 in active UC stage.

Discussion/Conclusion: In patients with UC, the suPAR circulating levels are low and have no value to reflect intestinal inflammation. The pattern of plasma proteins may suggest that excess of thrombin and thrombomodulin may inhibit generation of suPAR, and in turn prevent suPAR mediated reactions in patients with UC.

58. Short-chain fatty acid content in faecal filtrate in military personnel with inflammatory bowel disease

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Introduction: Assessment of the spectrum of short-chain fatty acids (SCFAs) in the faecal filtrate of patients with inflammatory bowel disease (IBD) is an important step in analysing the functional state of the gut microbiota, as it is these metabolites that reflect the intensity of bacterial fermentation and the trophic activity of colonic colonies. SCFAs are involved in maintaining the intestinal barrier function, ensuring the energy metabolism of enterocytes, and regulating local and systemic immune responses. Therefore, changes in their concentrations in faecal filtrate may indicate the extent of gut microbiota disruption during inflammatory processes. In patients with IBD, changes in the pool of short-chain fatty acids may reflect not only the degree of microbiota dysfunction but also features of nutritional status and dietary patterns, which is particularly relevant for military personnel under conditions of multifactorial stress. In view of this, an in-depth study of the content of short-chain fatty acids in the faecal filtrate of military personnel with IBD is an important step towards understanding the mechanisms of metabolic disorders in this patient group and identifying potential targets for therapy.

The aim of this study was to investigate the characteristics of the content of gut microbiota metabolites in military personnel with IBD.

Methods: A total of 28 military personnel with IBD were examined, of whom 6 had metabolic syndrome (Group II) and 22 did not have metabolic syndrome (Group I). The control group consisted of 7 healthy patients.

HPLC chromatography of the faecal filtrate was performed on a 'Chromatek-Crystal 5000' chromatograph according to Guohua Zhao. Quantitative identification of SCF fractions, column calibration and chromatogram analysis were performed using the method of normalising peak areas and their proportions according to Sigma Aldrich (USA) acid standards. The content of acetic (C2), propionic (C3), butyric (C4), isovaleric (C5) and valeric (C5) acids in the faecal filtrate was determined. Anxiety levels were also assessed using the HADS questionnaire.

Results: In patients with IBD, a significant reduction in the total content of SCFAs (Σ C2–C4) was observed: from 2118.14 $\mu\text{g/ml}$ compared to the control of 585.60 $\mu\text{g/ml}$ in Group I and down to 1301.28 $\mu\text{g/ml}$ in Group II. The most pronounced decrease was observed for propionic acid (430.11–68.17 and 363.69 $\mu\text{g/ml}$) and butyric acid (348.92–181.32 and 175.69 $\mu\text{g/ml}$), which are key metabolites of microbial fermentation.

Acetic acid (C2) levels also decreased in both groups, reaching 452.97 $\mu\text{g/ml}$ in Group I and 609.76 $\mu\text{g/ml}$ in Group II compared to 1059.62 $\mu\text{g/ml}$ in the control, indicating inhibition of the main pathway of SCF formation.

The lowest levels of valeric acid (C5) were recorded in Group II (6.30 $\mu\text{g/ml}$), reflecting a profound disturbance in the metabolism of C5-carboxylic acids; in group I, its level was higher, but significantly lower than in the control group (30.53 $\mu\text{g/ml}$ versus 115.32 $\mu\text{g/ml}$).

A positive correlation was found between colonic involvement in UC and C2 and C3 levels ($r = 0.409$ and $r = 0.439$), respectively ($p < 0.05$), as well as between C3 and basal metabolism ($r = 0.497$, $p < 0.01$). The inflammatory component was

confirmed by a significant correlation between C4 and C-reactive protein levels ($r = 0.823$; $p < 0.05$). Of interest are the associations between HADS anxiety scores and butyric acid ($r = 0.454$; $p < 0.05$) and valeric acid ($r = 0.518$; $p = 0.01$), which confirm the influence of the gut-brain axis.

Discussion/Conclusion: In patients with IBD, a significant reduction in the total content of short-chain fatty acids, primarily propionic and butyric acids, was observed, indicating marked disturbances in microbial fermentation in the large intestine. Changes in SCFA levels correlate with colonic involvement in Crohn's disease, markers of systemic inflammation, and basal metabolism. Associations were found between SCFA concentrations and anxiety levels, which may indicate the involvement of gut microbiota metabolites in the functioning of the gut-brain axis.

59. Adjuvant dietary supplementation with *Propionibacterium Shermanii* T73 modulates mucosal dysbiosis and attenuates clinical severity in inflammatory bowel disease

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Introduction: Many IBD patients report their symptoms become worse after consuming several food products. Furthermore, dietetic factors are known to influence colonic mucosa both directly and through changes of gut microbiota. The mechanisms explaining complex relationship between the commensal colonic microbiota and IBD have a common outcome, a violation of bacterial antigens exposure to effector T-cells and innate immune cells residing in the intestinal mucosa and/or alteration of the host immune response to bacteria. While the role of gut microbiota and respective immune changes has become more evident in recent years there is no sufficient database explaining the character of microbiota changes in IBD under the influence of diet. Probiotics are thought to work particularly by altering the composition of the intestinal microbiota, the epithelial barrier function of the intestine, and have important immunoregulatory activity. Expanding this idea, probiotics have been subject for intensive research, mainly focusing on most common species of Bifidobacteria and Lactobacteria. IBD-AID diet, while being based on avoidance of several products, is heavily enriched with pre- and probiotics. However, existing reports of probiotic-enriched diets use in IBD are contradictory, especially when comparing different types of probiotics. The aim of the study is to clarify the impact of probiotic enriched-enriched diet on IBD course to add existing database.

Methods: Cohort of 128 IBD patients participate in the study. Twenty-five practically healthy individuals formed control for studying baseline microbiota. Colonic resistance studied in mucosal bioplates. Standard aerobic and anaerobic microbiology techniques with taxonomic identification and quantity composition of microbiota were used. Specially engineered strain of *P. Shermani* (T73) with increased antagonistic/immunoregulatory potential was orally given twice on a

daily basis during 150–180 days in a form of suspension containing 1012–1014 live bacteria added to food as adjuvant dietary compound. Thirty-four patients without probiotic treatment formed control. Both groups' patients received mesalazine 1500–3000 mg daily as a basis therapy. Treatment efficacy evaluated according to WGO Global Guidelines and included CDAI, SF-36 and IBDQ scores.

Results: Major autochthonic species (14 in total) were present in all samples: among them Lactobacteria, Bifidobacteria, *E. coli*, several other anaerobic species were dominating. However, Lacto- and Bifidobacteria were found in significantly lower levels compared to healthy subjects ($p = 0.02\text{--}0.0031$). The general tendency for colonic resistance in IBD was decrease of autochthonic anaerobes (Bifido-, Lactobacteria, *Bacteroides* spp, *Clostridia* spp, *Bacillae* spp.) and significant growth of allochthonic aerobes and facultative anaerobes (*E.coli* Hly+, *Pseudomonas*, *Serratia*, *Hafniae*, *P. mirrabilis* and other conditionally pathogenic *Enterobacteriaceae*). Enterococci were present in 60.0% of healthy and 7.14–20.69% of IBD patients. Staphylococci were present only in IBD group (17.24–31.58%). There were 15.96% and 23.53% recurrences requiring hospitalization during the study period. CDAI score at the end of study was 43.22 ± 3.07 points lower in study group ($p < 0.05$). SF-36 score difference between groups became 12.01 ± 0.37 %. Abdominal pain, stool, and drug use for symptomatic therapies improved in study group, too. However, probiotic treatment of the preset duration did not influence any extraabdominal signs and symptoms. Endoscopic picture and biopsies presented no specific differences between groups after treatment, while subjectively evaluated as a 'better visual picture'.

Discussion/Conclusion: Morbid changes of colonic mucosal microbiota, e.g. abnormal ratio of autochthonic and allochthonic species, and general simplification of colonic biodiversity may be considered as a strong characteristic feature of IBD. While diet in IBD is an important treatment approach, the results of existing studies of probiotic use in IBD are mostly confusing, probably due to improper selection of probiotic agent. The tested strain of *Propionibacterium* Shermani T73 is in use comparatively rare and remains to some extent an understudied probiotic compound, and showing its potential usefulness for use in IBD. Furthermore, it may be interesting to compare obtained results with faecal transplant therapy and other types of diet therapy.

60. Targeted curcuminoid dietary intervention as a synergistic adjuvant strategy in inflammatory bowel disease

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Introduction: Multiple factors playing a role in the pathogenesis of IBD may include genetic susceptibility, diet, infectious agents, environmental factors, immunologic factors, and the microbiome. Associations of food habits and IBD are well established with many IBD patients become increasingly interested in non-pharmacologic dietary approaches to managing the disease. Generally,

there is a lack of meticulous scientific evidence that demonstrates which diet is best for specific patient, though several diets such as the Specific Carbohydrate Diet, IBD-AID, Low-FODMAP, Ketogenic Diet, Mediterranean Diet and the Paleo Diet have become increasingly popular. Another developing option is the use of adjuvant substances like food supplements and additives, among them pre- and probiotics, vitamin D and herbal compounds. Curcumin, an active substance of turmeric has shown potential as an alternative/additional treatment in several conditions characterized by inflammation including fibromyalgia, arthritis, eczema and psoriasis, and has been used for centuries in Ayurveda medicine. Few recent studies have shown its usefulness in reducing some of the IBD's symptoms, including diarrhoea, abdominal pain, weight loss, fatigue, and rectal bleedings. Notwithstanding, supported by ECCO Recommendations, existing database on whether curcumin is effective in combination with standard therapy of IBD. Therefore, the aim of the study is to clarify the efficacy of curcumin adjuvant therapy in multimodal treatment of IBD patients.

Methods: Thirty-four IBD patients were enrolled in the study after providing informed consent (UC and CD equal). Among them, 20 patients received curcumin 800 mg as *Curcuma longa* extract triple daily in capsules with piperine 15 mg. Fourteen patients form control group with administration of low-sugar placebo capsules. Both groups' patients received mesalazine 1500–3000 mg daily as a basis therapy. Treatment efficacy evaluated according to WGO Global Guidelines and included CDAI, SF-36 and IBDQ scores. Endoscopic index (EI) calculated at entry, and at the end of 180-day study.

Results: There were 4 (20.0%) and 4 (28.57%) recurrences in study group and control group requiring additional treatment measures during the study period and six months follow up. CDAI score at the end of study was 35.07 ± 3.15 points lower in study group ($p < 0.05$). SF-36 score difference between groups became $11.87 \pm 0.43\%$. Abdominal pain, stool, and drug use for symptomatic therapies improved in study group, too. Endoscopic picture (EI) presented positive differences between groups after treatment.

Discussion/Conclusion: Obtained evidence suggests that the use of curcumin-enriched diet has potential benefits in IBD as an adjuvant therapy. However, it may not be recommended as alternative treatment for IBD as there is no substantiation of its efficacy compared to standard therapy. Exact mechanisms of curcumin and curcuminoids action in IBD probably involve anti-inflammatory, antioxidant, microbiota modulatory, and immune-regulating properties but remain mostly unclear and require further investigation. Further studies may involve more patients and better control to produce more reliable results, enhance understanding and treatment efficacy.

61.Precision colonoscopy for inflammatory bowel disease: Evaluating machine learning models for colonoscopy

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Introduction: Artificial intelligence (AI) and machine learning (ML) are transforming colon endoscopy for inflammatory bowel disease (IBD) by shifting clinical paradigms from subjective visual inspection to objective, automated analytics. Evaluating IBD traditionally relies on endoscopic scoring systems to judge mucosal inflammation, a process heavily prone to inter- and intra-observer variability. By leveraging deep learning algorithms and convolutional neural networks, computer-aided detection and diagnosis systems can process high-definition colonoscopy imaging in real time. These models standardize the assessment of disease activity by automating metrics like the Mayo Endoscopic Score and the Ulcerative Colitis Endoscopic Index of Severity, achieving high concordance with expert central readers. Furthermore, AI excels at predicting histological remission directly from mucosal surfaces, characterizing early tissue abnormalities, and exposing subtle dysplastic or pre-malignant lesions that are frequently masked by chronic inflammation. By minimizing video review times and integrating multi-modal clinical data, AI-driven precision endoscopy is significantly optimizing patient stratification, long-term outcome forecasting, and clinical trial recruitment. However, successful implementation of AI requires use of digital data obtained from primary source of information. Therefore, use of AI for endoscopic investigation is limited. The confocal endoscopic microscopy (CM) is being introduced into clinical practice, yet its use is limited due to difficulties and subjectivity of results assessment. In recent years, coherent polarimetry microscopy (CPM) became widely used in military and space innovations as a diagnostic remedy. It provides good background for use of AI because all data is immediately digitized in specialized graphic software. The object of this study is to evaluate CPM's diagnostic value and applicability by means of digitization and use of AI/ML.

Methods: Cohort of 107 individuals formed the study: 26 healthy volunteers (control), 46 patients with endoscopically undoubted changes (group 1) and 35 patients with dubious endoscopic (at least two endoscopists didn't fully agree about diagnosis or repeated endoscopies/biopsies were needed) picture (group 2). For colonoscopy we used CPM modified CM endoscopic system. Reflected He-Ne laser beam wavelength of 0.6328 μm by means of collimator transformed into a collimated beam, then passing through linearly polarized plane, quarter-wave phase shifting plane with optical axis oriented at the angle of 45 degrees to the polarization plane of laser radiation. In addition to standard visual assessment following optical digital parameters were automatically calculated: S-average polarization value, Mx-mathematic expectation, STD2-average squared variation, Dx-disperse, As-asymmetry, Ex-excess, MEDx-median. Stocks-polarimetry of obtained static visual images was the last step for data analysis. Obtained visual picture was real-time digitized in MathLab software. A set of machine learning algorithms was employed including Decision Tree, Extra Trees, Gaussian/Bernoulli Naive Bayes, Logistic Regression, and Support Vector Machine. AI model performance was assessed via k-fold cross-validation, ROC analysis, and SHAP feature importance. All AI analyses were performed in Python (version 3.9.12) using pandas 2.1.3, NumPy 1.26.0, Scikit-learn (version 1.0.2), SHAP 0.44.0, matplotlib 3.8.0, seaborn 0.13.2, and Dython libraries.

Results: Data obtained at the study showed that the pathological process involving inflamed mucosal structures is usually accompanied by the sufficient enlargement and disorientation of anisotropic and amorphous optical components while inner layers remain less anisotropic. Following CPM variables were obtained in automated calculations: in control - $S = 0.3599301$, $Mx = 0.3599304$, $STD2 = 0.0940612$, $Dx = 0.0090288$, $As = 77.3583341$, $Ex = 2591.8350251$, $MEDx = 0.3530412$; in group 1 - $S = 0.4275069^*$, $Mx = 0.4275069^*$, $STD2 = 0.1076124$, $Dx = 0.0115804^*$, $As = -2.0407966^*$, $Ex = 1231.3691156^*$, $MEDx = 0.4196078^*$; in group 2 - $S = 0.3595752$, $Mx = 0.3595752$, $STD2 = 0.1053428$, $Dx = 0.0110971^*$, $As = 430.0877889^*$, $Ex = 36154.1218620^*$, $MEDx = 0.3529412$, where $^* - p < 0.05$ compared to control. Stocks-polarimetry showed 23.1-28.6% increase of Stocks vector maximal value in both study groups, and two to three-fold evaluation of statistical distribution parameters. The employed neural network models achieved high discriminative performance, with validation ROC-AUC values ranging from 0.901 to 0.922. Extra Trees and Gaussian Naive Bayes demonstrated the highest sensitivity for detecting complications ($Recall = 0.819 \pm 0.240$ and 0.805 ± 0.251 , respectively). All evaluated ML models demonstrated high discriminative performance, as evidenced by ROC-AUC values exceeding 0.90. The highest ROC-AUC values were achieved by the Bernoulli Naive Bayes (0.922 ± 0.103), Extra Trees (0.908 ± 0.120), and Gaussian Naive Bayes (0.901 ± 0.131) models. From a clinical perspective, particular attention was paid to the Recall metric, which reflects the model's diagnostic ability. The highest Recall values were observed for the Extra Trees (0.819 ± 0.241) and Gaussian Naive Bayes (0.806 ± 0.245) models, indicating superior sensitivity toward the positive class. The Bernoulli Naive Bayes model demonstrated a slightly lower Recall value (0.789 ± 0.243).

Discussion/Conclusion: Endoscopic visualisation of intact and pathologically changed colonic mucosa is not always a reliable diagnostic remedy, though CM dramatically improves its value. CPM is a further development of CM decreasing subjectivity of investigation due to 'human factor' and allowing real-time transformation of visual images into digital form. Despite the small cohort size, the achieved performance ($ROC-AUC > 0.90$) and consistency of identified digital parameters suggest that the proposed framework captures high signal-to-noise structure in the data. This highlights the feasibility of applying ML-based colonoscopy diagnosis in data-constrained clinical settings. However, real use of obtained data and their wide application into clinical practice through use of AI remains limited due to complexity and absence of easy to use instruments. In fact, a set of physical parameter is easy to implement into AI software but difficult to implement into real-life diagnostic approaches. To add confusion, some figures are very similar in different pathological conditions, leading to suggestion that these variables are able to distinguish normal tissue from pathological but unable to provide accurate final diagnosis. A closer cooperation of endoscopists, optical engineers and software developers may support further advances in the field.

62. Metabolic profile in military personnel with inflammatory bowel disease

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Introduction: The treatment of inflammatory bowel disease (IBD) is of particular importance for military personnel, who typically experience a combination of prolonged psychological and emotional strain, chronic combat stress, disruptions to their diet, sleep, rest patterns, as well as irregular access to medical care.

Methods: The study included 40 military personnel with IBD: group I - 32 patients without metabolic syndrome, group II - 8 patients with metabolic syndrome. The control group - 10 apparently healthy individuals. Serum lipid profile parameters, glucose, insulin, cortisol, and leptin were measured.

Results: All patients with IBD demonstrated elevated serum cortisol levels compared with the control group ($p < 0.05$). Leptin levels in group II were 2.4-fold higher than in the control group, amounting to 6.25 (4.0; 16.2) ng/mL versus 2.65 (0.45; 3.9) ng/mL, and 1.5-fold higher than in group I, in which the level was 4.1 (2.3; 8.4) ng/mL ($p < 0.05$). In group II insulin levels reached 12.9 (7.7; 25.8) $\mu\text{IU/mL}$, which was 1.8-fold higher than in group I, while HOMA-IR was 3.1 (1.6; 6.0), exceeding the control value by 1.4-fold and the group I value by 2.1-fold ($p < 0.05$). The lipid profile in group II was characterized by increased total cholesterol to 5.22 (4.93; 5.86) mmol/L, triglycerides to 1.44 (1.29; 2.11) mmol/L, and very low-density lipoprotein cholesterol to 0.66 (0.59; 0.97) mmol/L, along with a decrease in high-density lipoprotein cholesterol to 1.17 (0.87; 1.41) mmol/L. A direct correlation was found between HOMA-IR and cortisol levels ($r = +0.369$; $p = 0.033$), as well as between leptin and HOMA-IR ($r = +0.437$; $p = 0.005$).

Discussion/Conclusion: In military personnel with IBD, the presence of metabolic syndrome is associated with elevated leptin levels. Incorporating insulin, HOMA-IR, leptin, and cortisol assessment into the standard examination may improve early diagnosis of metabolic comorbidity and risk stratification.

63. Dynamics of anemia and inflammation in patients with inflammatory bowel disease receiving advanced therapies

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Introduction: Anemia is one of the most common complications and extraintestinal manifestations of inflammatory bowel disease (IBD). Even though it may be multifactorial, it could also be useful as a biomarker reflecting treatment response in this group of patients, which we are seeking in the IBD group.

Methods: This retrospective study included patients treated in the National Medical Institute of the Ministry of the Interior and Administration, Department

of Gastroenterology and Internal Medicine, Warsaw, Poland, and in the Hammoud Hospital University Medical Center. Available electronic data on demographics, hemoglobin (Hg), hematocrit (Hct), mean corpuscular volume (MCV), vitamin B12, folic acid, ferritin, CRP, calprotectin, and vitamin D were collected. Pre-, after-induction, and post-treatment (after 1 year) values were compared between the two groups. CDAI or Total Mayo Score assessed clinical response, and if available, endoscopic and sonographic data.

Results: 551 patients—239 female (43.4%), 308 male (55.9%), and four of unknown gender (0.7%)—aged 6–81 years ($M = 40.02$; $SD = 13.96$) were included. Time from diagnosis ranged 0–50 years ($M = 9.87$; $SD = 6.85$). At baseline, ferritin was higher in the anti-TNF group than in the JAKi and IL-23 groups ($p \leq 0.009$), while vedolizumab recipients had higher MCV than the JAKi, anti-TNF, and IL-23 groups ($p \leq 0.020$). After the induction phase, JAKi exhibited lower Hg and Hct than the vedolizumab, anti-TNF, and S1P groups ($p \leq 0.003$); IL-23 patients also had lower Hg than the S1P group ($p = 0.023$). Ferritin remained higher in anti-TNF patients than in patients receiving vedolizumab or IL-23 ($p \leq 0.025$).

Discussion/Conclusion: Advanced IBD therapies are associated with distinct trajectories of hematologic and immune cell markers over time. JAKi-treated patients had lower Hgb/Hct after induction and at 1 year of treatment, while anti-TNF-treated patients had higher ferritin levels. The PLR ratio, as a marker of the inflammatory response, could help identify patients who may or may not benefit from IV iron.

64. Pelvic symptoms and male sexual health in inflammatory bowel disease: A cross-sectional study

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Introduction: Sexual dysfunction (SD), lower urinary tract symptoms (LUTS), and fecal incontinence (FI) are common but frequently overlooked complications of inflammatory bowel disease (IBD). Although each condition has been investigated separately, their coexistence and potential interplay in male patients with IBD remain poorly understood. This study aimed to comprehensively evaluate gastrointestinal, urinary, and sexual symptoms in men with IBD and to explore their relationship with disease activity and inflammatory burden.

Methods: Eighty-three consecutive male patients with Crohn's disease (CD, $n = 46$) or ulcerative colitis (UC, $n = 37$) underwent assessment using validated questionnaires for FI (Wexner score, FIQL), prostatitis-related symptoms (NIH-CPSI), lower urinary tract symptoms (IPSS), erectile function (IIEF-5), and ejaculatory function (MSHQ-EjD). Disease activity was assessed using the Crohn's Disease Activity Index (CDAI) or Mayo clinical score, while fecal calprotectin served as a biomarker of intestinal inflammation. Correlations among

gastrointestinal, urinary, sexual, hormonal, and inflammatory parameters were analyzed.

Results: UC patients had significantly greater FI severity than CD patients (Wexner score 2.8 ± 4.3 vs. 1.1 ± 2.3 , $p = 0.02$), and FI severity correlated with clinical disease activity in UC but not with fecal calprotectin. FI significantly impaired all domains of FI-related quality of life. Prostatitis-related symptoms strongly correlated with LUTS and were associated with worse erectile and ejaculatory function (all $p < 0.05$). Conversely, FI severity showed no significant association with urinary or sexual dysfunction scores. Sex hormone levels did not correlate with sexual dysfunction questionnaires.

Discussion/Conclusion: Male patients with IBD frequently experience both pelvic floor and sexual disorders. While urinary symptoms are closely associated with impaired sexual function, FI seems to follow different pathophysiological mechanisms. Routine multidimensional assessment of continence, urinary symptoms, and sexual health may improve patient-centered management beyond the control of intestinal inflammation.

65. Targeting the TIM-3/Galectin-9 axis to restore immune and metabolic homeostasis in inflammatory bowel disease

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Introduction: Inflammatory bowel disease is characterized by chronic gastrointestinal inflammation driven by dysregulated T cell activity. The T cell immunoglobulin and mucin domain receptor 3 (TIM-3) is a key inhibitory immune checkpoint. While its role in cancer is well-established, the intracellular mechanisms by which TIM-3 influences mucosal inflammation and metabolic balance in IBD remain poorly understood.

Methods: We investigated TIM-3 expression in colonic biopsies and PBMCs from IBD patients and healthy controls using single-cell sequencing, qPCR, and FACS. To elucidate its functional role, TIM-3 deficiency was studied in experimental colitis models. We employed high-resolution mini-endoscopy, histology, and untargeted metabolomic analysis of lamina propria mononuclear cells. Furthermore, the therapeutic potential of the TIM-3 ligand, Galectin-9, was evaluated both in vitro and in vivo.

Results: IBD patients exhibited significantly elevated TIM-3 levels in tissues and TCR-stimulated T cells compared to controls. In murine models, TIM-3 deficiency led to aggravated colitis characterized by increased T cell activity and a significant metabolic shift. Metabolomic analysis revealed that TIM-3 deficiency disrupts metabolic homeostasis and increases oxidative stress in the mucosa. Importantly, Galectin-9 expression was found to be downregulated in both IBD patients and during chronic experimental colitis. Administration of recombinant Galectin-9 successfully induced T cell apoptosis, reduced pro-inflammatory mediators, and decreased oxidative stress in a dose-dependent manner. Summary

Discussion/Conclusion: Our findings identify TIM-3 as a crucial regulator of both immune activation and metabolic homeostasis in the gut. The downregulation of the TIM-3/Galectin-9 axis contributes to the pathogenesis of IBD. Consequently, activating this pathway with Galectin-9 represents a promising translational strategy to rebalance the mucosal immune system and restore metabolic health in IBD patients.

66. Comparative evaluation of ADMIT-ASC and ACE scores for predicting steroid failure in acute severe ulcerative colitis: A single-center experience

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Introduction: Acute severe ulcerative colitis (ASUC) is a potentially life-threatening condition requiring early identification of patients at risk of steroid failure to guide timely escalation of therapy. The ADMIT-ASC and ACE scores have been proposed as simple bedside tools for early risk stratification, but their predictive performance remains inconsistent across cohorts. To evaluate and compare the predictive performance of the ADMIT-ASC and ACE scores for steroid failure in ASUC.

Methods: We conducted a retrospective study including 37 patients hospitalized for ASUC between 2020 and 2026 in the Gastroenterology Department at Taher Maamouri Hospital, Nabeul, Tunisia. Steroid failure was defined according to Travis criteria. The predictive performance of ADMIT-ASC ≥ 2 and ACE ≥ 3 was assessed using sensitivity, specificity, odds ratio (OR) and receiver operating characteristic (ROC) curve analysis.

Results: The cohort included 22 men (59.5%) and 15 women (40.5%), with a mean age of 39 years. The mean Lichtiger score was 10 ± 2.5 . Endoscopic signs of severity were present in 22/37 patients (59.5%). Steroid failure occurred in 19/37 patients (51.3%), and colectomy was required in 11 cases (29.7%). An ADMIT-ASC score ≥ 2 was observed in 28 patients (75.7%), with a sensitivity of 78.9% and specificity of 27.8% for predicting steroid failure (OR = 1.44, 95% CI: 0.31–6.63, AUC 0.53), indicating limited discriminative ability. An ACE score ≥ 3 was observed in 12 patients (32.4%), with a sensitivity of 31.6% and specificity of 66.7% (OR = 0.92, 95% CI: 0.23–3.66, AUC 0.49), also reflecting poor discrimination. Failure rates were slightly higher in patients with ADMIT-ASC ≥ 2 (53.6%) versus ACE ≥ 3 (50%).

Discussion/Conclusion: In our cohort, the ADMIT-ASC score demonstrated higher sensitivity but poor specificity, whereas the ACE score showed low sensitivity and moderate specificity. Overall, both scores had limited discriminative performance, as reflected by low AUC values. These findings should be interpreted with caution due to the small sample size, retrospective design, and potential selection bias. Larger prospective studies are warranted to refine risk stratification and optimize early management in ASUC.

67. Factors associated with primary anti-tumor necrosis factor alpha treatment failure in luminal Crohn's disease

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Introduction: Crohn's disease (CD) is a chronic inflammatory bowel disease (IBD) that can substantially impair patients' quality of life. Although several predictors of poor outcomes in CD have been reported, data regarding predictors of primary failure to anti-tumor necrosis factor alpha (anti-TNF) therapy, particularly in luminal disease, remain scarce. Identifying such predictors could help anticipate therapeutic response and optimize therapeutic strategies.

Methods: This is a retrospective observational study conducted in a Tunisian gastro-enterology department between January 2020 and January 2026. Patients with luminal CD initiating anti-TNF therapy were included. Cases in which anti-TNF was prescribed for perianal disease or extra-intestinal manifestations were excluded.

Our aim was to identify factors associated with primary anti-TNF treatment failure in luminal CD.

Results: Forty-nine patients were included, of whom 54.2% were male. The mean age was 43.5 ± 14.6 years. According to the Montreal classification, 60.4% of patients were classified as A1, 58.3% as L3, and 41.7% as B2. Most patients (71%) received infliximab (IFX), while the remaining patients received adalimumab (ADA). Azathioprine was used as an immunomodulator in 70.8% of patients, including 79.4% of those treated with IFX. Extra-digestive manifestations were present in 45.8% of patients, with rheumatologic manifestations observed in 37.8%. The mean baseline Harvey-Bradshaw index (HBI) was 5.04 ± 2.5 , the median baseline C-reactive protein (CRP) level was 13.6 mg/L [5.5–23], and the median albumin level was 41.0 g/L [34.3–45.0]. After induction therapy, primary treatment failure occurred in 20.8% of patients. Rheumatologic manifestations at induction were significantly more frequent in patients with primary treatment failure (RR = 1.9; 95% CI [1.41–2.57]; $p = 0.006$). Baseline HBI was significantly higher in the prim

Discussion/Conclusion: In our cohort, rheumatologic manifestations, higher baseline HBI, and lower albumin were associated with primary anti-TNF treatment failure in luminal CD. These findings could help develop predictive scores to guide early therapeutic decisions.

68. Factors associated with secondary loss of response to anti-tumor necrosis factor alpha treatment in luminal Crohn's disease

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Introduction: Anti-tumor necrosis factor (anti-TNF) agents are effective in inducing and maintaining clinical and biological remission in patients with Crohn's disease (CD). Although approximately 70% of patients with luminal CD initially respond to induction therapy, up to 35% experience secondary loss of response within the first year. The determinants of this unfavorable outcome remain unclear. Identifying patients at risk is essential to optimize therapeutic strategies and prevent disease progression and impaired quality of life.

Methods: We conducted a retrospective observational study in a Tunisian gastroenterology department between January 2020 and January 2026. We included patients with luminal CD who received anti-TNF therapy for the first time and were followed for at least one year. Patients with perianal disease and those with primary non-response to induction therapy were excluded. The aim of this study was to identify factors associated with secondary loss of response to anti-TNF therapy.

Results: A total of 34 patients were included; 55.9% were male, with a mean age of 43.4 ± 14.4 years. According to the Montreal classification, 50.5% were classified as A2, 58.8% as L3, and 41.2% as B2. Most patients (79.4%) received infliximab (IFX), while the remainder received adalimumab (ADA).

Secondary loss of response occurred in 14.7% of patients. These patients had a significantly shorter interval between diagnosis and initiation of anti-TNF therapy (3.2 ± 1.6 vs. 6.2 ± 5.1 years, $p = 0.023$). After induction therapy, they exhibited significantly higher disease activity scores, with increased CDAI (187 ± 46.9 vs. 126 ± 81.6 , $p < 0.001$) and HBI (6.4 ± 1.14 vs. 4.5 ± 2.4 , $p = 0.005$).

Additionally, patients with secondary loss of response had a lower lymphocyte count compared to those in sustained remission at one year (1155 ± 539 vs. 1705 ± 758 cells/mm³, $p = 0.045$). Persistent abdominal pain after induction therapy was associated with an increased risk of flare at week 52 (OR = 1.67; 95% CI: 0.82–3.41; $p = 0.001$).

Discussion/Conclusion: In this cohort, earlier initiation of anti-TNF therapy, higher post-induction disease activity (CDAI and HBI), and lower lymphocyte count were associated with secondary loss of response. These findings may help identify patients at risk and guide therapeutic optimization.

69. Upadacitinib use in patients with inflammatory bowel diseases: A real world data

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Introduction: Inflammatory bowel disease (IBD) is characterized by recurrent gastrointestinal inflammation. Although biologics, and immunomodulators are the standard treatment modalities, some patients experience loss of response (primary or secondary) or intolerance over time. Upadacitinib clinical trials showed a rapid response and a low immunogenicity in IBD. However, real-world data are essential to assess a new molecule in a different region of the world.

Methods: This prospective study included IBD patients receiving upadacitinib 45 mg/day for the first 4 months and then 30 mg/day in the long-term at a tertiary University Hospital. Data covered demographics and treatment term, and endoscopic findings in each patient. Moreover, a structured questionnaire evaluating previous therapies, reason of the initiation of therapy, clinical response, adverse effects, discontinuation, and satisfaction were recorded. Between June 2024 and December 2025, 106 patients with IBD who used upadacitinib were included in this study. The mean age was 41.3 years, and 45.8% were female. All patients had prior exposure to anti-TNFs. Azathioprine used n 81.3%.

Results: The main reason for switching from anti-TNF to upadacitinib was inadequate response in 54.2% patients. Clinical improvement was frequently reported, particularly reductions in abdominal pain and diarrhea. Treatment was discontinued in 9 patients.

Discussion/Conclusion: Upadacitinib provided meaningful symptomatic improvement with a favorable safety profile. Adverse events were mild and discontinuation remained very low (15.8%). These findings supported that UPA use was very well-tolerated and a good alternative for patients with IBD who do not respond or can not tolerate previous biologics.

70. Metabolic dysfunction and liver fibrosis risk in Crohn's disease patients referred for molecularly targeted therapy

Judyta Znamierowska (Katowice, PL), **Magdalena Gawron-Kiszka** (Katowice, PL), **Kaja Glowacka** (Katowice, PL), **Joanna Musialik** (Katowice, PL)

Introduction: The prevalence of overweight, obesity, and metabolic dysfunction is increasing among patients with Crohn's disease (CD), contributing to the growing burden of metabolic dysfunction-associated steatotic liver disease (MASLD). However, data on metabolic dysfunction, hepatic steatosis, and liver fibrosis risk in patients with moderate-to-severe Crohn's disease referred for molecularly targeted therapy remain limited. The aim of the study was to assess the burden of metabolic abnormalities, hepatic steatosis, and liver fibrosis risk in this population.

Methods: This retrospective study included 200 consecutive adult patients with moderate-to-severe Crohn's disease (CDAI $\geq$ 220) referred for molecularly targeted therapy at a tertiary referral center. Clinical, metabolic, laboratory, and abdominal ultrasound findings, including ultrasound-defined hepatic steatosis, were compared according to BMI (< 25 vs. ≥ 25 kg/m²), with additional assessment of liver fibrosis risk using the FIB-4 index.

Results: Fifty (25%) patients had BMI ≥ 25 kg/m², including 34 (17%) with overweight and 16 (8%) with obesity. They were older (median age, 40.0 (30.25–46.75) vs. 29.0 (23.0–38.0) years, $p < 0.001$), with a higher prevalence of ultrasound-defined hepatic steatosis (78.3% vs. 17.1%, $p < 0.001$) and hypertension (38.0% vs. 8.0%, $p < 0.001$). They also had higher ALT, AST, triglycerides, glucose, and FIB-4 values (all $p < 0.05$). Among patients with BMI ≥ 25 kg/m², 9 (18%) had FIB-4 $\geq$

1.3, including 3 (6%) with FIB-4 > 2.67. Median fecal calprotectin was lower (146.0 (75.75–364.75) vs. 482.0 (114.25–1082.75) µg/g, $p = 0.014$).

Discussion/Conclusion: These findings support routine screening for MASLD, including non-invasive liver fibrosis assessment, in overweight and obese patients with moderate-to-severe Crohn's disease, in line with current MASLD recommendations.

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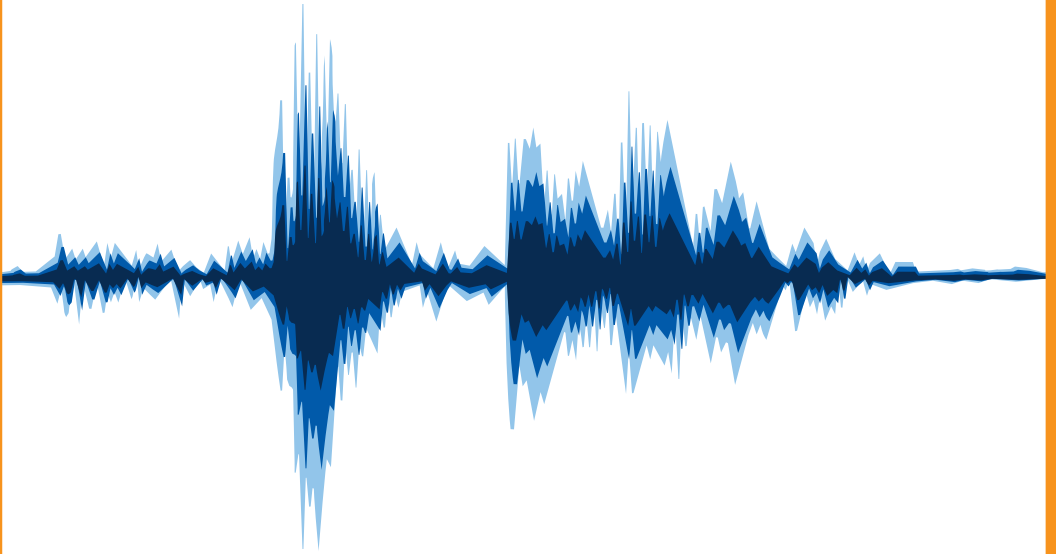
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