Abstract IDDF2021-ABS-0087 Figure 6

The abundance of enterococcus in the non-response group was higher than that in the other groups (IDDF2021-ABS-0087 Figure 6).

Conclusions Enterococcus and bifidobacterium may be risk factors for FMT-related AE, and the high abundance of enterococcus in patients may affect the efficacy of FMT.

IDDF2021-ABS-0090 RESEARCH ON APPLICATION OF WEXNER SCORE AND MAGNETIC RESONANCE DEFECOGRAPHY IN PATIENTS WITH FUNCTIONAL CONSTIPATION

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Background To describe some clinical characteristics, Wexner score, and magnetic resonance defecography in patients with functional constipation.

Methods Describing cross-study. Forty-two (42) patients were diagnosed with functional constipation according to ROME IV criteria. Magnetic resonance defecography and evaluation of the severity of constipation according to Wexner score were indicated in these patients from 01/2020 to 06/2021 at Hanoi Medical University Hospital.

Results The mean duration of constipation was 6.1 ± 5.9 years. Dyschezia and prolonged defecation were common symptoms (IDDF2021-ABS-0090 Table 1). Decreased frequency of bowel movements only accounted for 57.1% (IDDF2021-ABS-0090 Table 2). Magnetic resonance defecography detected 24/42 patients with rectocele; 16/42 patients with anismus; 15/42 patients with rectal prolapse, and 20/42 patients with uterus, bladder prolapse (IDDF2021-ABS-0090 Table 4). Incomplete defecation and assistance were common in rectocele. The group with rectocele and rectal prolapse experienced a longer duration of constipation. Decreased frequency of bowel movements was common in the group with anismus. The mean Wexner score was 13.3 ± 4.0 (IDDF2021-

Abstract IDDF2021-ABS-0090 Table 1 Evaluate constipation symptoms according to ROME IV criteria

Symptoms	n	%
Fewer than three spontaneous bowel movements per week	24	57.1
Straining for more than 25% of defecation attempts	36	85.7
Lumpy or hard stools for at least 25% of defecation attempts	31	73.8
Sensation of anorectal obstruction or blockage for at least 25% of defecation attempts	33	78.6
Sensation of incomplete defecation for at least 25% of defecation attempts	34	81.0
Manual maneuvering required to defecate for at least 25% of defecation attempts	32	76.2

Abstract IDDF2021-ABS-0090 Table 2 Evaluate symptoms according to Wexner score

Symptoms	With symptoms		Without symptoms	
	n	%	n	%
Decreased frequency of bowel movements	18	42.9	24	57.1
Duration of constipation more than 1 year	2	4.8	40	95.2
Difficulty/painful evacuation effort	1	2.4	41	97.6
Completeness: feeling incomplete evacuation	8	19.0	34	81.0
Abdominal pain	20	47.6	22	52.4
Assistance	10	23.8	32	76.2
Lavatory attempts lasting more than 5 minutes	4	9.5	38	90.5
Failure: unsuccessful attempts for evacuation per 24 hours	20	47.6	22	52.4

Abstract IDDF2021-ABS-0090 Table 3 Wexner score in patients with functional constipation FC and subgroups

Symptoms	FC	Anismus	Rectocele	Rectal prolapse
Decreased frequency of bowel movements	1.0±1.1	1.3±1.2	0.7±0.9	1.0±1.1
Duration of constipation more than 1 year	1.7±1.0	1.3±0.9	2.0±1.1	1.9±0.9
Difficulty/painful evacuation effort	2.9±0.8	3.1±0.6	2.9±0.8	2.8±1.0
Completeness: feeling of incomplete evacuation	2.2±1.2	1.9±1.4	2.7±0.8	2.2±1.2
Abdominal pain	1.1±1.2	0.8±0.9	1.3±1.3	1.0±1.3
Assistance	1.4±0.9	1.3±0.9	1.7±0.7	1.5±0.8
Lavatory attempts lasting more than 5 minutes	2.3±1.3	2.4±1.4	2.4±1.3	2.3±1.3
Failure: unsuccessful attempts for evacuation per 24 hours	0.7±0.9	0.8±0.9	0.8±1.0	0.9±1.1
Sum	13.3±4.0	12.7±3.1	14.4±4.0	13.5±4.6

Abstract IDDF2021-ABS-0090 Table 4 Results of magnetic resonance defecography

Results of MR defecography	Male		Female		Sum		P
	n	%	n	%	n	%	
Rectal prolapse	3	23.1	10	76.9	13	100	>0.05
Rectocele	1	4.2	23	95.8	24	100	<0.001
Anismus	7	43.8	9	56.2	16	100	<0.05
Bladder prolapse	1	5.9	16	94.1	17	100	<0.05
Uterus prolapse			11	100	11	100	

ABS-0090 Table 3). The mean Wexner score in the group with rectocele was the highest at 14.4±4.0 (IDDF2021-ABS-0090 Table 3).

Conclusions The Wexner score is a simple and easy to apply clinical scale which helps to evaluate subgroups of functional constipation. Magnetic resonance defecography is useful in evaluating structural and functional abnormalities in patients with functional constipation.

IDDF2021-ABS-0091

PREDICTING EFFICACY OF FECAL MICROBIOTA TRANSPLANTATION FOR CROHN'S DISEASE BASED ON CLINICAL FACTORS AND METABOLOMICS

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Background Fecal microbiota transplantation (FMT) can effectively induce remission in a part of patients with Crohn's disease (CD). We aimed to establish machine learning models using clinical characteristics and serum metabolomics to predict the efficacy of FMT in patients with CD.

Methods Patients with active CD were enrolled. The baseline serum metabolic profiles, clinical characteristics of those subjects were evaluated. Patients with a Harvey-Bradshaw Index (HBI) ≤ 4 after FMT were classified as remission group, while others were assigned to non-remission group. Identified the differential clinical characteristics and metabolites between the groups before FMT, then constructed random forest (RF) models with variables selected by Boruta method to predict the efficacy.

Results Overall, 86 patients were included for analysis, with 54.65% of them achieved remission at three-month after FMT. Patients with penetrating CD, perianal disease, high HBI, low body mass index (BMI) and family history had a lower possibility to respond to FMT ($p < 0.05$). There were 148 baseline serum metabolites significantly different between the two groups ($p < 0.05$). We constructed RF classifiers using the most discriminatory clinical or metabolic factors, respectively, with the corresponding area under the curve (AUC) of 0.85 and 0.88. The RF model combined clinical characteristics and metabolites had better predictive performance (AUC = 0.95). Specially, two clinical factors (Behavior B3, B1) and seven metabolites (MMSucc; 4-(1-Methylethyl)-2,6-dinitro-N,N-dipropylbenzenamine; cefetamet; N-phenylacetylglutamine (pos); diisodecyl phthalate; N-phenylacetylglutamine (neg); eucommia) were commonly selected features across the three models.

(IDDF2021-ABS-0091 Figure 1. The RF classifier for clinical efficacy prediction of FMT based on clinical characteristics,

IDDF2021-ABS-0091 Figure 2. The RF classifier for clinical efficacy prediction of FMT based on serum metabolites,

IDDF2021-ABS-0091 Figure 3. The RF classifier for clinical efficacy prediction of FMT based on the combination of clinical characteristics and serum metabolome,

IDDF2021-ABS-0091 Figure 4. Comparison of the most discriminatory metabolites at baseline between the remission and non-remission groups)

Conclusions In this study, the constructed RF models using serum metabolites, clinical characteristics have a good