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Idiopathic megacolon and slow-transit constipation: the comparison of clinical features and quality of life

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ABSTRACT *AIM: to compare the clinical features and quality of life in patients with chronic constipation due to idiopathic megacolon/megarectum and slow-transit constipation.*

PATIENTS AND METHODS: the retrospective study (2003–2024) included 260 patients with chronic constipation, which were undergone barium enema to exclude/confirm megacolon/megarectum. First group (n = 158) included patients with idiopathic megacolon/megarectum. Hirschsprung's disease was excluded in all patients by clinical features, barium enema and anorectal manometry and rectal Swenson's biopsy if needed. One-hundred and two patients with chronic slow-transit constipation and normal size of the bowel were included in the 2 group.

RESULTS: in the 1 group patients were significantly younger (Me = 26.0 (19.0; 43.0) years and Me = 33.0 (23.0; 48.0) years (p = 0.043)) and significant male predominance was revealed (87/158 (55.1%) vs 15/102 (14.7%), (p < 0.0001)). Wexner constipation scale rate, burden of symptoms of abdominal discomfort and defecation difficulties in point scale were significantly higher in the 2 group of patients with normal size of bowel (p = 0.01, p = 0.013 and p = 0.0005, respectively). QoL with an IBSQOL questionnaire were significantly better in 1 group (p = 0.0001). At the same time there were no significant difference in overall transit time between groups (p = 0.789). Defecation impairment assessed by defecography (time of defecation and rest volume) were significantly higher in the 1 group (p < 0.0001 for both). In multivariate analysis the presence of megacolon/megarectum was significant independent predictor of better quality of life, as the young age as well (p = 0,001 u p = 0,013, respectively). In addition, contrary to defecography results, there was significant association between the presence of megacolon/megarectum and lower rate of "defecation difficulties" scale (p = 0,002). At the same time female gender was only significant independent predictor of burden of Wexner constipation scale and "abdominal discomfort" scale (p = 0.0007 u p = 0.048, respectively).

CONCLUSION: patients with chronic constipation due to idiopathic megacolon/megarectum have significantly better quality of life and lower burden of clinical features then slow-transit constipation ones.

KEYWORDS: *idiopathic megacolon, idiopathic megarectum, slow-transit constipation, quality of life, barium enema*

CONFLICT OF INTEREST: *the authors declare no conflict of interest*

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INTRODUCTION

Idiopathic megacolon/megarectum is usually considered within the framework of chronic constipation [1–5]. Quite often, these patients require surgical treatment, mainly due to the occurrence of life-threatening complications or a high risk of them. At the same time, when choosing the volume of intestinal resection, a significant number of authors are guided by the approaches used in relation to slow-transit disorders, as the closest and best studied [1,5–9]. However, unlike megacolons, with slow-transit constipation, the main indication for surgery is not to save life, but to improve its quality, when we assume that constipation is responsible for its decrease.

Therefore, it seemed interesting to compare the severity of clinical symptoms and the it impact on

the quality of life of chronic constipation in normal bowel size and in the presence of megacolon/megarectum.

PATIENTS AND METHODS

A comparative retrospective study of the severity of clinical symptoms, the results of checkup and assessment of the quality of life of patients with chronic constipation with normal bowel size vs megacolon/megarectum was carried out.
The study included patients from 2003 to 2024 (n = 260) with complaints of chronic constipation, who underwent barium enema to confirm/exclude megacolon/megarectum. The first group (n = 158) consisted of patients with idiopathic megacolon/megarectum during the checkup. Hirschsprung's disease was excluded in all cases. In the majority of patients (n = 139), based on a combination of X-ray picture and anorectal manometry data, the rectoanal inhibitory reflex was preserved. In case of challenging results and contradictions in these tests, a full-thickness biopsy of the rectal wall by Swanson was done to assess intramural ganglia (n = 19). The second group (n = 102) included those patients with chronic constipation whose bowel size was within the normal range according to the results of barium enema. The normal adiological parameters in accordance with the national clinical guidelines were given by us earlier [12]. The severity of clinical symptoms was assessed using a special questionnaire based on the integral indicators 'abdominal discomfort', 'defecation difficulties', and the intensity of constipation on Wexner's scale. The indicators were calculated by simply summing the score of the severity of the corresponding symptoms according to the method described earlier [12]. Quantitative assessment of quality of life (QoL), also on a point scale, was performed using the IBSQOL questionnaire [13]. This questionnaire includes sections such as emotional sphere, mental health, sleep, general tone, physical activity, nutrition, social activity, ability to perform basic activities and sexual relations. The indicators are calculated as a percentage of the best possible total score for this section and thus range from 0 to 100. The total score is calculated as the mean of the indicators. The lower the score, the worse the quality of life.
The severity of transit disorders was assessed by passage of barium suspension through the gastrointestinal tract (GIT) for 5 days. The groups were compared according to the total transit time (TTT), expressed in points, where TTT up to 24 hours, 24–48 hours, 49–72 hours, 73–96 hours and more than 96 hours corresponded to 1, 2, 3, 4, and 5 points. The condition of the rectal evacuation function was estimated using X-ray defecography. The comparison was based on the time of defecation and the amount of residual volume. Due to defects in questionnaires by patients, as well as the uneven scope of the checkup and the technical limitations of the diagnostic tests, the number of cases for each of the compared indicators could be different. Therefore, the tables indicate the number of cases in the corresponding rows.

Statistical Analysis

Statistical analysis was performed using the STATISTICA software version 13.3 (TIBCO, USA). Qualitative features were described by absolute and relative frequencies. Quantitative variables were represented by medians (Me), 1st and 3rd quartiles (Q1; Q3). The comparison of the groups based on binary characteristics was performed using Fischer's two-way exact test. Quantitative differences were assessed using Mann-Whitney's U-test. The differences were considered statistically significant at $p < 0.05$. The multivariate analysis was carried out by constructing a general linear model of multiple regression, which allows taking into account the influence of both quantitative and categorical (ordinal or nominal binary) features. To assess the overall significance of each regression model constructed, F-test was used; at $p < 0.05$, it was assumed that at least one of the predictors had a significant

Table 1. *The ratio of men and women in the groups*

Feature		Chronic constipation		p
		megacolon/megarectum (1)	Norma bowel size (2)	
		n / N (%)	n / N (%)	
Gender	Male	87/158 (55.1)	15/102 (14.7)	**< 0.0001**
	Female	71/158 (44.9)	87/102 (85.3)	

relationship with the response variable, and such a model was generally considered statistically significant. To further search for the relationship of a particular predictor with a response variable, the t-test was applied and, at $p < 0.05$, it was assumed that there was a statistically significant relationship. The distribution of dependent variables in the multivariate analysis was assessed by Kolmogorov-Smirnov's test, according to which the distribution of all four indicators (total QoL score, intensity of constipation on Wexner's scale, 'abdominal discomfort' and 'defecation difficulties') could be considered normal. The distribution of residues, according to the visual evaluation of the histograms, was also close to normal. Therefore, we considered it possible to use linear regression analysis. It should also be noted that in all regression analysis models, the multiple adjusted coefficient of determination R^2 was low and did not exceed 0.1. This indicates a weak overall explanatory power of the selected predictors. However, since the purpose of building models was not to predict, but to assess the statistical significance of the relationship between the presence or absence of megacolon/megarectum, the results of regression analysis remain relevant.

RESULTS

Patients with constipation on the background of megacolon/megarectum (group 1) were significantly younger. Thus, their median age was 26.0 (19.0; 43.0) years, while in patients with normal bowel size (group 2) this indicator was 33.0 (23.0; 48.0) years ($p < 0.0001$) (Table 2). In addition, significant gender differences were noted between the groups: if in the 1st group the ratio of men and women was approximately the same, then in the 2nd group the proportion of women exceeded 85% (Table 1).

When comparing the severity of clinical symptoms, significant differences were noted in the magnitude of the integral indicators 'abdominal discomfort' and 'defecation difficulties', as well as in the intensity of constipation on the modified Wexner's scale in favor of their greater severity in patients of group 2, that is, with normal bowel size. Accordingly, the assessment of QoL by patients in the first group was higher in all domains of the IBSQOL scale, including the total score. Moreover, with the exception of the effect on sleep and basic activity, this difference was significant (Table 2).

At the same time, there were no significant differences in the severity of transit disorders between groups, the total transit time of barium through the gastrointestinal tract exceeded 96 hours in most of the patients in the both groups (Table 2, Table 3). However, the proportion of patients who had independent defecation during the transit study (of those, for whom this indicator could be estimated), in the first group it turned out to be statistically significantly higher than in the second one (Table 4). This may indirectly indicate a slightly less pronounced violation of the propulsive activity of the bowel in the megacolon group.

As for evacuation disorders, the results of defecography indicate that they are much more pronounced in patients of the first group. Thus, both the time of defecation and the amount of residual volume were significantly greater in the presence of megacolon/megarectum than without them (Table 2).

Since the assessment of QoL and the severity of clinical symptoms depend on age and gender of patients [12], and the groups differed

Table 2. *Clinical symptoms, assessment of QOL, severity of transit disorders and evacuation disorders in patients of groups 1 and 2*

Feature		Chronic constipation				p
		megacolon/megarectum		Normal bowel size		
		n	Me (Q1;Q3)	n	Me (Q1;Q3)	
Age (years)		158	26.0 (19.0; 43.0)	102	33.0 (23.0; 48.0)	**0.043**
Independent stool (points)		124	2.0 (1.0; 4.0)	75	1.0 (0.0; 2.0)	**< 0.0001**
Defecation frequency (points)		126	3.0 (2.0; 4.0)	85	2.0 (2.0; 4.0)	0.07
Urge to defecate (points)		118	2.0 (1.0; 2.0)	100	1.0 (0.0; 2.0)	**0.002**
Abdominal discomfort (points)		114	11.5 (8.0; 15.0)	101	13.0 (10.0; 17.0)	**0.013**
Defecation difficulties (points)		112	8.0 (5.0; 12.0)	95	12.0 (7.0; 15.0)	**0.0005**
Constipation intensity (Wexner's scale)		113	13.0 (9.0; 16.0)	91	15.0 (11.0; 18.0)	**0.01**
IBSQOL	Emotional sphere	107	68.7 (50.0; 81.2)	89	56.2 (37.5; 68.7)	**0.007**
	Mental health	107	70.0 (60.0; 85.0)	89	60.0 (45.0; 75.0)	**< 0.0001**
	Sleep	109	75.0 (58.3; 83.3)	89	75.0 (50.0;83.3)	0.215
	Tonus	106	50.0 (37.5; 75.0)	90	37.5 (25.0;50.0)	**< 0.0001**
	Physical activity	99	66.7 (50.0; 83.3)	88	50.0 (25.0; 83.3)	**0.006**
	Nutrition	108	60.0 (46.7; 66.7)	90	48.3 (33.3; 66.7)	**0.011**
	Social activity	106	56.2 (31.2; 75.0)	89	50.0 (18.7; 75.0)	**0.034**
	Main activity	102	43.7 (25.0; 75.0)	90	37.5 (12.5; 68.7)	0.240
	Sexual relations	56	79.2 (58.3; 100.0)	58	50.0 (16.7; 83.3)	**0.0002**
	Total score	108	61.1 (49.6; 73.9)	90	48.4 (36.2; 65.9)	**0.0001**
Transit through GIT (points)		98	5.0 (5.0; 5.0)	64	5.0 (5.0; 5.0)	0.789
Defecography	T_{def} (sec.)	71	40.0 (27.0; 70.0)	53	25.0 (15.0; 38.0)	**< 0.0001**
	$V_{res.}$ (ml)	79	38.0 (20.0; 65.0)	65	20.0 (15.0; 25.0)	**< 0.0001**

Table 3. *Total transit time (TOC) according to the study of the passage of barium slurry through the gastrointestinal tract*

TTT	Chronic constipation	
	megacolon/megarectum (1)	Normal bowel size (2)
	n / N (%)	n / N (%)
24-48 hours	7/98 (7.2)	0/64 (0.0)
49-72 hours	6/98 (6.1)	5/64 (7.8)
73-96 hours	10/98 (10.2)	10/64 (15.6)
over 96 hours	75/98 (76.5)	49/64 (76.6)

Table 4. *Proportion of patients who had self-defecation during the gastrointestinal transit study*

Feature	Chronic constipation		p
	megacolon/megarectum (1)	Normal bowel size (2)	
	n / N (%)	n / N (%)	
Independent defecation during gastrointestinal transit study	48/70 (68.6)	26/58 (44.8)	**0.008**

statistically significantly in these parameters, to clarify the effect of the bowel size a multivariate analysis was performed. According to the multivariate regression analysis in a general linear model taking into account gender and age of patients, the presence of megacolon/megarectum remained a statistically significant independent predictor of a better quality of life, along with a young age. Moreover, judging by the values of β-coefficients and the probability of error of the first kind (p) of the both predictors, the bowel size was more important than age (Table 5).

In addition, in contrast to defecography, the presence of megacolon/megarectum was significantly associated with a lower severity of symptoms of defecation difficulties (Table 6).

At the same time, the female gender was the only significant independent predictor of the greater severity of abdominal discomfort and

Table 5. *The influence of age, gender, and the presence of megacolones/megarectums on the overall assessment of QOL (general linear model, multiple adjusted coefficient of determination R2 = 0.098, p = 0.00004)*

Feature	β-coefficient	Standard error of β-coefficient	*p*
Age	–0.170	0.068	**0.013**
Males	0.070	0.073	0.338
Megacolon/megarectum	0.243	0.073	**0.001**

Table 6. *Influence of age, gender, and the presence of megacolones/megarectum on the value of the integral indicator "bowel movement disorder" (general linear model, multiple adjusted coefficient of determination R2 = 0.048, p = 0.0049)*

Feature	β-coefficient	Standard error of β-coefficient	*p*
Age	–0.095	0.068	0.167
Males	0.017	0.073	0.816
Megacolon/megarectum	–0.235	0.073	**0.002**

Table 7. *Influence of age, gender, and the presence of megacolones/megarectum on the value of the integral indicator "abdominal discomfort" (general linear model, multiple adjusted coefficient of determination R2 = 0.082, p = 0.0002)*

Feature	β-coefficient	Standard error of β-coefficient	*p*
Age	–0.054	0.068	0.430
Males	–0.250	0.073	**0.0007**
Megacolon/megarectum	–0.114	0.073	0.120

Table 8. *Influence of age, gender, and the presence of megacolones/megarectums on the intensity of constipation on the Wexler scale (general linear model, multiple adjusted coefficient of determination R2 = 0.037, p = 0.016)*

Feature	β-coefficient	Standard error of β-coefficient	*p*
Age	0.031	0.069	0.655
Male gender	–0.149	0.075	**0.048**
Megacolon/megarectum	–0.119	0.075	0.112

the intensity of constipation on Wexner's scale (Tables 7, 8).

Almost a third (51/158; 32.3%) of patients in the first group had a history of sigmoid colon volvulus. Thus, their megacolon/ megarectum was complicated and the reason for going to the clinic was not only constipation, but also the prevention of volvulus recurrence. In the second group, sigmoid colon volvulus was found only in 1/101 (0.9%) patient. Such differences may be the cause of a systematic error in comparing the severity of clinical symptoms and quality of life. Therefore, we conducted a repeated comparative analysis without taking into account these patients (Table 9).

Indeed, as can be seen from Table 9, there was no significant difference in the values of the indicators 'abdominal discomfort' and 'defecation difficulties', as well as the intensity of constipation on Wexner's scale between the groups. At the same time, the assessment of QoL due to constipation in patients with megacolon/megarectum was still statistically significantly better than in the group with normal bowel size, although the difference was less pronounced. The multivariate analysis performed similarly to the previous one did not demonstrate a statistically significant association of QoL assessment with the presence of megacolon/megarectum as an independent factor. This was only the age of the patients (Table 10). With regard to the value of the 'abdominal discomfort' indicator, a statistically significant relationship was still observed only with the gender of the patients (Table 11). And for the intensity of constipation on Wexner's scale and the value of the 'defecation difficulties' parameter, none of the three predictors included in the regression turned out to be significant (all $p > 0.05$).

Table 9. *Clinical symptoms, assessment of QOL, severity of transit disorders and evacuation disorders in groups 1 and 2, excluding patients with a history of inversion*

Feature		Chronic constipation				p
		megacolon/megarectum without a history of volvulus		normal bowel size without a history of volvulus		
		n	Me (Q1;Q3)	*n*	Me (Q1;Q3)	
Age (years)		107	22.5 (18.0; 38.0)	101	33.0 (23.0; 48.0)	**0.0002**
Independent stool (points)		80	2.0 (1.0; 4.0)	74	1.0 (0.0; 2.0)	**0.0009**
Defecation frequency (points)		83	3.0 (1.0; 3.0)	85	2.0 (2.0; 4.0)	0.717
Urge to defecate (points)		78	2.0 (1.0; 2.0)	100	1.0 (0.0; 2.0)	**0.047**
Abdominal discomfort (points)		72	13.0 (9.0; 16.0)	100	13.0 (10.0; 17.0)	0.268
Defecation difficulties (points)		71	10.0 (7.0; 13.0)	94	12.0 (7.0; 15.0)	0.109
Constipation intensity (Wexner's scale)		71	14.0 (11.0; 18.0)	91	15.0 (11.0; 18.0)	0.859
IBSQOL	Emotional sphere	66	62.5 (43.7; 75.0)	88	56.2 (37.5; 68.7)	0.188
	Mental health	67	70.0 (60.0; 85.0)	88	60.0 (45.0; 75.0)	**0.0009**
	Sleep	68	75.0 (58.3; 83.3)	88	75.0 (54.2;83.3)	0.648
	Tonus	67	50.0 (37.5; 62.5)	89	37.5 (25.0;50.0)	**0.007**
	Physical activity	62	66.7 (41.7; 83.3)	87	50.0 (25.0; 83.3)	**0.049**
	Nutrition	67	60.0 (46.7; 73.3)	89	50.0 (33.3; 66.7)	**0.030**
	Social activity	67	50.0 (31.2; 68.7)	88	50.0 (18.7; 75.0)	0.400
	Main activity	64	37.5 (18.7; 71.9)	89	37.5 (12.5; 68.7)	0.978
	Sexual relations	33	66.7 (50.0; 100.0)	57	50.0 (16.7; 83.3)	**0.007**
	Total score	67	56.0 (45.9; 70.5)	89	48.5 (36.4; 65.9)	**0.016**
Transit through GIT (points)		57	5.0 (4.0; 5.0)	64	5.0 (5.0; 5.0)	0.300
Defecography	T_{def}. (sec.)	49	50.0 (30.0; 70.0)	53	25.0 (15.0; 38.0)	**< 0.0001**
	V_{res}. (ml)	54	40.0 (20.0; 80.0)	65	20.0 (15.0; 25.0)	**< 0.0001**

Table 10. *The effect of age, gender, and the presence of megacolones/megarectum on the overall assessment of QOL without taking into account patients with a history of inversion (general linear model, multiple adjusted coefficient of determination R2 = 0.080, p = 0.0014)*

Feature	β-coefficient	Standard error of β-coefficient	p
Age	–0.240	0.080	**0.003**
Male gender	0.048	0.085	0.575
Megacolon/megarectum	0.126	0.084	0.135

Table 11. *Influence of age, gender, and the presence of megacolones/megarectum on the value of the integral indicator "abdominal discomfort" without taking into account patients with a history of inversion (general linear model, multiple adjusted coefficient of determination R2 = 0.030, p = 0.044)*

Feature	β-coefficient	Standard error of β-coefficient	p
Age	–0.037	0.077	0.634
Male gender	–0.211	0.083	**0.012**
Megacolon/megarectum	–0.013	0.082	0.876

DISCUSSION

Constipation is one of the main clinical manifestations of idiopathic megacolon/megarectum, although not the most common [14]. In real clinical practice, megacolon is usually detected during checkup for constipation. Because of this, it is traditional to treat megacolon as one of the pathogenetic types of chronic constipation, along with slow transit disorders and evacuation disorders [1,5]. Moreover, a number of authors consider megacolon as the last, most pronounced stage of slow-transit constipation [9]. Accordingly, the detection of megacolon serves as a criterion for a more severe course of constipation and an additional argument in favor of surgery. This approach involves extrapolating to the megacolon of surgical tactics used in the treatment of slow-transit constipation with normal bowel size. Namely, that the main factor determining QoL and the severity

of clinical symptoms is the severity of transit disorders. Moreover, the latter are most pronounced in the expanded parts of bowel, but they do not occur only in them. Thus, in addition to the dilated ones, it makes sense to remove the visually normal parts of the colon, which, firstly, may have impaired propulsive activity. And secondly, it can expand in the future and cause an unsatisfactory functional outcome of the surgery due to the both of these circumstances. Based on this, a significant number of authors recommend colectomy with ileorectal anastomosis as a method of treating megacolon with a normal size of the rectum and proctocolectomy with pouch in the case of a combination of megacolon with megarectum [6,7,8,10,11].

In our opinion, such approachis not obvious. Moreover, we have not previously been able to detect in patients with idiopathic megacolon/megarectum a significant correlation between the intensity of constipation on Wexner's scale and the severity of abdominal discomfort, either with the bowel size according to barium enema, or with the severity of transit disorders [14]. Therefore, we tried to compare the clinical symptoms and QoL of patients with chronic constipation against the background of megacolon and with normal bowel size in order to assess how justified the perception of megacolon as a more severe variant of slow-transit constipation is and, accordingly, how applicable the surgical approach used in relation to the latter are.

The results of the comparison turned out to be quite contradictory. On the one hand, compared with slow-transit constipation, idiopathic megacolon/megarectum is associated with much greater risks of a complication (volvulus, intestinal obstruction by fecal stones/blockages). But at the same time, QoL in these patients is significantly better, and the severity of symptoms of abdominal discomfort and defecation difficulties, as well as the intensity of constipation on Wexner's scale, is lower than in patients with slow-transit constipation, with comparable severity of transit disorders and more significant disturbances of evacuation from the rectum. According to the multivariate analysis, taking into account age and gender differences between the groups, the presence of megacolon remains an independent predictor of a better quality of life and less difficulty defecating. But the intensity of constipation on Wexner's scale and the severity of abdominal discomfort are statistically significantly associated only with gender.

At the same time, for patients with uncomplicated megacolon, the advantage in QoL is less pronounced and is more likely due to the younger age of the patients than the difference in the bowel size. The magnitude of the integral indicators of the severity of clinical symptoms does not significantly differ from that of patients suffering from slow-transit constipation. The interpretation of the results of a comparative assessment of patients with chronic constipation on the background of megacolon/megarectum and with normal bowel size is complicated by two factors associated with the risk of systematic error. The first one is that the reason for seeking help in a significant part of patients with megacolon was a complicated course of the abnormality, involving surgical treatment, regardless of the severity of the clinical symptoms. While the patients in group 2 were primarily looking for a way to get rid of constipation, abdominal discomfort and difficulty defecating to improve their QoL, which they attributed to constipation. And most of them asked the clinicians about the possibility of surgical correction of constipation. Nevertheless, we believe that the comparison is justified, since its ultimate goal is to determine surgical treatment in patients with idiopathic megacolon/megarectum. From this point of view, it seems logical to compare them with the group of patients suffering from persistent slow-transit constipation, who have a question about the expediency of surgery. The second significant limitation is related to the methodology for assessing the propulsive activity of the intestine — the study of transit through the gastrointestinal tract. Indeed, when comparing the groups, we did not find significant differences in the severity of transit violations. But it

is quite possible that the degree of transit slowdown in patients of group 2 was still greater, we simply could not identify this, since the study was conducted for 5 days, and in most patients of the both groups we can only say that the passage time of the barium was more than 96 hours. Indirectly, the possibility of such a situation is confirmed by a significantly lower proportion of patients in group 2 who had stools during the transit study. Accordingly, the difference in QoL may be due, among other things, to the difference in the severity of transit violations. But then we have even less reason to believe that megacolon/megarectum is associated with a more pronounced worse propulsive activity of the colon, a greater severity of clinical symptoms and a worse quality of life than chronic slow-transit constipation. In this case, the question arises as to whether aggressive approach his justified in the surgery for megacolon similar to slow-transit constipation. Namely, colectomy, regardless of the prevalence and localization of colon dilation. Perhaps more appropriate is left-sided hemicolectomy for the left-sided megacolon, subtotal resection with ascendorectal anastomosis for the subtotal and only for total megacolon — colectomy. Moreover, a recurrence of megacolon in the remaining parts of the colon, even if it does occur, may not be evidence of an unsuccessful outcome if there is no recurrence of the volvulus and a clinical improvement has been achieved. In any case, it is quite possible to expect that this effect will be less significant than the effect of diarrhea and anal incontinence associated with ileorectal anastomosis and pelvic small intestinal reservoir. It is clear that, ideally, the advantage of a particular treatment approach should be demonstrated by conducting a comparative randomized trial. But this is hardly possible for idiopathic megacolon/megarectum, both because of the rarity of the condition and for ethical reasons. Therefore, in our opinion, even indirect arguments such as those given in this study should be taken into account when choosing the volume of resection.

CONCLUSION

The quality of life of patients with chronic constipation on the background of idiopathic megacolon/megarectum is significantly better, and the severity of clinical symptoms is less than in patients suffering from slow-transit constipation.

AUTHORS CONTRUBUTION

Concept and design of the study: *Denis V. Aleshin, Sergey I. Achkasov*

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