

Quality of life in patients with deep infiltrative endometriosis after minimally invasive surgical treatment



Authors: E. Brătilă¹, C.A. Coroleucă¹, R. Munteanu², L. Răpreanu², A. Ichiman², A. Manu¹, A. Baușic¹, C.B. Coroleucă¹

¹ Clinical Hospital of Obstetrics and Gynaecology "Prof. Dr. Panait Sîrbu", University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania

² Monza Hospital, Bucharest, Romania

INTRODUCTION: Endometriosis is a common gynecological condition among women of childbearing age, associated with chronic pelvic pain, dysmenorrhea, infertility and impaired quality of life. The aim of this paper is to evaluate the effectiveness of minimally invasive surgical treatment in cases of deep endometriosis as well as the impact on quality of life, dysmenorrhea, dyspareunia, chronic pelvic pain and digestive symptoms.

MATERIALS AND METHODS:

We conducted a prospective study for a period of three years. We enrolled patients with symptoms and preoperative evaluation suggestive of deep infiltrating endometriosis. 125 patients were divided into three groups (Group 1 – 53 patients – 42,4 % - intestinal endometriosis, Group 2 - 61 patients – 48,8 % deep infiltrating endometriosis, Group 3 - 11 patients – 8,8 % endometrioma). All patients included in the study received minimally invasive surgery. All patients included in the study were evaluated preoperative using a questionnaire on endometriosis symptoms and quality of life (SF-36 Questionnaire, Gastrointestinal Quality of Life Index (GIQLI), Knowles-Eccersley-Scott Symptom (KESS), ROMA Criteria IV). 66 patients (Lot 1 – 28 patients with deep infiltrating intestinal endometriosis, Lot 2 - 38 patients with deep infiltrating endometriosis without intestinal involvement) of the patients were also evaluated at 6 months, 1 year, respectively 2 years postoperatively.

Dysmenorrhea duration	Medie ± SD	Median (IQR)	p*
Preoperative (p<0.001**)	5.27 ± 5.204	3 (2-6.75)	0.002
6 months (p<0.001**)	3.07 ± 2.26	2 (2-3)	
Diferența	2.2 ± 4.74	0 (0-3.75)	-
Lot	Medie ± SD	Median (IQR)	p***
Lot 1 (p=0.001**)	1.88 ± 4.52	0 (-1 - 3)	0.324
Lot 2 (p<0.001**)	2.41 ± 4.94	0 (0-4)	

Table 2. Duration of dysmenorrhea

Dysmenorrhea (Nr. / %)	Absentă	Prezentă	p*
Preoperative	5 (7.6%)	61 (92.4%)	<0.001
6 months	25 (37.9%)	41 (62.1%)	
Rate of treatment	20 (30.3%)		-
Loturi	Dismenoree nemodificată	Dismenoree tratată	p**
Lot 1	11 (37%)	11 (55%)	0.189
Lot 2	29 (63%)	9 (45%)	

Table 3. Evolution of the frequency of dysmenorrhea

Dyspareunia (Nr. / %)	Absent	Present	p*
Preoperative	25 (37.9%)	41 (62.1%)	<0.001
6 months	47 (71.2%)	19 (28.8%)	
Rate of treatment	24 (36.4%)		-
Loturi/Dyspareunie	Dyspareunia not modified	Dyspareunia treated	p**
Lot 1	20 (47.6%)	8 (33.3%)	0.308
Lot 2	22 (52.4%)	16 (66.7%)	

Table 4. Evolution of the frequency of dyspareunia

Digestive symptoms (Nr. / %)	Present	Absent	p*
Preoperative	59 (89.4%)	7 (10.6%)	<0.001
6 months	38 (57.6%)	28 (42.4%)	
Rate of treatment	21 (31.8%)		-
Lot/Digestive symptoms postoperativ	Symptoms not modified	Symptoms treated	p**
Lot 1	18 (40%)	10 (47.6%)	0.601
Lot 2	27 (60%)	11 (52.4%)	

Table 5. Evolution of digestive symptoms

PCS	Medie ± SD	Mediană (IQR)	Rang mediu	p*
Preoperative	45.99 ± 8.55	47.83 (43.06-51.48)	1.63	0.005
6 months	50.59 ± 6.87	52.64 (46.24-55.48)	2.63	
12 months	50.72 ± 5.00	50.87 (48.72-53.31)	2.87	
24 months	51.31 ± 4.79	51.16 (49.79-53.63)	2.87	

Table 6. Evolution of the postoperative PCS (physical component of health) score (6/12/24 months)

Score – SF-36	Medie ± SD	Median (IQR)	Min	Max
PF (Physical functioning)	78.16 ± 25.79	90 (70-95)	0	100
RP (Role physical)	69.57 ± 27.16	75 (50-93.75)	0	100
BP (Bodily Pain)	47.22 ± 23.41	41 (31.25-62)	0	100
GH (General Health)	57.59 ± 19.63	57 (42-72)	5	97
VT (Vitality)	51.79 ± 20.76	50 (37.5-68.7)	6.25	100
SF (Social functioning)	64.89 ± 23.69	75 (50-87.5)	0	100
RE (Role emotional)	68.62 ± 26.85	75 (50-100)	0	100
MH (Mental Health)	59.74 ± 19.91	55 (45-75)	10	100
PCS (Physical component Summary)	44.51 ± 8.39	45.97	19.7	60.6
MCS (Mental Component Summary)	43.31 ± 10.47	42.94	17.2	68.7
Other scores	Medie ± SD	Mediană (IQR)	Min	Max
KESS (Knowles-Eccersley-Scott Symptom)	9.88 ± 5.48	9 (6-13)	0	31
GIQLI (Gastrointestinal Quality of Life Index)	86.37 ± 20.29	88 (71-102.7)	27	141
Changes according to scores	Nr.			Procent
Existent depression (according to MH ≤52)	57			41.9%
Existent depression (according to MCS ≤42)	49			36%
Constipation present (according to KESS>10)	56			41.2%
Gastrointestinal transit alterations (ROMA IV)	Nr.			Procent
(Last three months)				
Improvement of pain after defecation	87			64%
Changes in the frequency of the stool	59			43.4%
Changes in the consistency of the stool	67			49.3%

Table 1. Description of quality of life scores (SF-36, GIQLI, KESS) and changes in digestive transit according to ROMA IV criteria for irritable bowel of the patients analyzed in the study

RESULTS:

The mean age of the patients was 32.92 years old. 69.99% of the patients were nulligravida.

Distribution of patients related to the existence of digestive symptoms associated with pain between groups was (Group 1 vs Group 2 vs Group 3):

- pain during defecation (12 vs 6 vs 3 – 22,6 % vs 9,8 % vs 27,3%)
- nausea (5 vs 8 vs 2 – 9,4 % vs 13,1 % vs 18,2 %)
- rectal bleeding (4 vs 0 vs 0 – 7,5 % vs 0 % vs 0%)
- constipation (3 vs 4 vs 0 – 5,7 % vs 6,6 % vs 0 %)
- diarrhea (7 vs 10 vs 2 – 13,2 % vs 16,4 % vs 18,2 %)
- bloating (17 vs 23 vs 5 – 32,1 % vs 37,7 % vs 45,5 %).
- aFisher's tests showed that the digestive symptoms did not significantly change their frequency between groups (p> 0.05), so that the share of digestive symptoms was relatively similar between groups.

Following surgery, there was a significant improvement in dysmenorrhea, dyspareunia, chronic pelvic pain, defecation pain and lower abdominal pain. The frequency of constipation according to the KESS score did not change significantly, the treatment rate of constipation is not significant - 19.7% (p = 0.167).

The evolution of the score measuring the quality of life regarding physical functioning (SF) and the physical (PCS) and mental health (MCS) component were significantly different postoperatively; the postoperative values at 6 months and 1 year were significantly higher compared to preoperative values (p < 0.05).

CONCLUSIONS: Health-related quality of life is a multidimensional, dynamic concept that encompasses the physical, psychological and social aspects associated with a disease or its treatment. Minimally invasive surgical treatment for endometriosis significantly improves quality of life and digestive symptoms.