Surgical management of deep pelvic endometriosis in France: Do we need to be a pelvic surgeon to deal with DPE?

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Introduction

Endometriosis is a common disease, described as the presence of endometrial-like tissue outside the uterus. Its affects 6 to 10% of women[1]. Deep endometriosis invades the bowel in 5 to 40% of cases, and urinary tract in 1 to 4% of cases[2] . When those organs are involved, surgery by gynecologist with a colorectal surgeon or a urologist may be necessary. Endometriosis surgery requires a specific management and the European Society of Human Reproduction and Embryology (ESHRE) recommend a multidisciplinary approach in tertiary referral centers and the creation of multidisciplinary teams to improve endometriosis management[3,4]. Based on the oncological management experience[5], endometriosis reference centre projects are developing[6,7]. However, there is no specific surgical training nor any clear codification concerning the surgical technique[7] . The aim of our study was to assess the surgeons' attitude when bowel or urinary tract are involved. The secondary objectives were to evaluate the respect of ESHRE and french guidelines, the training of gynecological surgeons and the quality of multidisciplinary collaboration.

Methods

We created a descriptive study of French gynecological surgeons. We sent by email a survey in French created on the platform Google Form©. Answers were collected from the 08/01/2019 to the 02/01/2020. We did a descriptive analysis and we divided the participants in two groups, according to the answer to the question "do you think gynecologic surgeons should be considered as "pelvic surgeons", able to treat bowel and urinary endometriosis?". We performed a comparative analysis. We used the software R® for statistical analysis, and Fischer test for the comparative analysis.

Results

We included 90 answers of gynecologic surgeons from all over France. When bowel involvement was suspected, gynecologic surgeons performed appendectomies in 78 (86%) cases, rectal shaving in 67 cases (74%), discoid resection in 10 cases (11%) and segmental resection in 9 cases (10%).
Digestive surgeons performed appendectomies in 11 cases (10%), rectal shaving in 14 cases (15%), discoid resections in 61 cases (68%), and segmental re- sections in 77 cases (85%).
When urinary tract involvement was suspected, gynecologists performed ureterolysis in 81 cases (90%), double J stenting in 14 cases (15%), ureteric resection-anastomosis in 11 cases (10%) and ureteric re implantation in 5 cases (5%). Urologists perform ureterolysis in 7 cases (8%), double J stenting in 4 cases (4%), ureteric resection-anastomosis in 76 cases (84%) and ureteric re implantation in 82 cases (91%).

Thirty-seven participants (42%) thought that gynecologic surgeons should be considered as pelvic surgeons when they deal with bowel and urinary endometriosis (group 1) versus 40 participants who disagreed (44%) (group 2). Their characteristics are described in table 1.
Surgeons from group 1 performed more endometriosis surgeries than surgeons from group 2 did (45.9% performed more than 40 surgeries a year, versus 17.2%, p = 0.02). They had more additional training in digestive surgery than group 2 (45.9% versus 25%, p = 0.02).
Surgeons from group 1 performed more digestive procedures than surgeons from group 2 did (Table 3). This difference was statistically significant for discoid resections, segmental resections and rectal shavings. Group 1's surgeons performed more urinary tract procedures when compared to group 2 (Table 2). This difference was statistically significant for ureteric reimplantation and ureteric resection-anastomosis but not for ureterolysis or double J stenting.

Table 1 : characteristics of the participants

	Pelvic surgeon (37)	%	Gynaecologic surgeon (40)	%	P
Gender					
Women	9	24,3	13	32,5	0,5
Men	28	75,7	27	67,5	
Type of practice					
Public	19	51,4	21	52,5	0,17
Liberal	15	40,5	19	47,5	
Number of procedure each year					
<10	7	18,9	7	17,5	1
10-20	8	21,6	10	25	0,24
20-40	5	13,5	16	40	0,02
>40	17	45,9	7	17,5	0,02
Multidisciplinary meeting	26	70,3	30	75	0,6
Additional training	20	54,1	16	40	0,4
- in digestive surgery	17	45,9	10	25	0,02
- in urological surgery	9	24,3	5	12,5	0,4

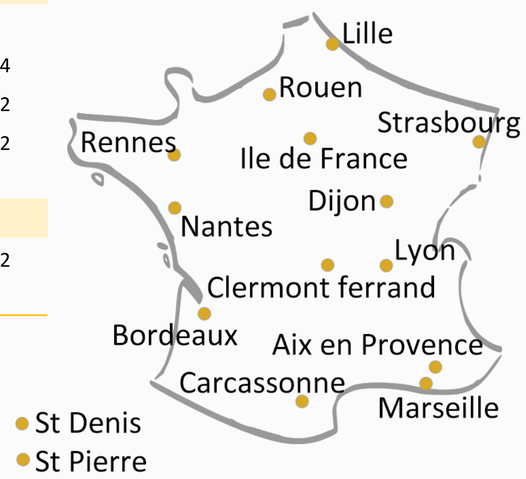
Table 2 : Urinary tract performed by gynecologist

	Group 1 (37)	%	Group 2 (40)	%	p
Ureterolysis	36	97,3	35	87,5	0,06
Double J stenting	8	21,6	5	12,5	0,4
Ureteric reimplantation	5	13,5	0	0	0,03
Ureteric resection anastomosis	11	29,7	0	0	<0,001

Table 3 : Bowel procedure performed by gynecologist

	Group 1 (37)	%	Group Z (40)	%	p
Appendicectomy	34	91,9	33	82,5	0,4
Discoid resections	9	24,3	0	0	<0,001
Segmental resections	9	24,3	0	0	0,001
Rectal shavings	34	91,9	26	65	0,002

Maps of the participants



Discussion

Management of endometriosis is uneven over France. Some gynecological surgeons would like a "pelvic surgeon" status for DPE surgeons (42% of participants). These surgeons perform more interventions than gynecologic surgeons do, with more than 40 cases a year (p=0.02). They often have an additional training in digestive surgery (p=0.02) and they perform more complex pelvic surgeries, for bowel as well as urinary tract involvement

Most of our participants have multidisciplinary meetings, as stated by European and French guidelines[3,4]. Radiologists and ART specialists often attend these meetings, but colorectal and urologic surgeons are rarely present. Colorectal surgery performed by gynecologists is controversial amongst specialists[8]. The training of obstetrician-gynecologist is vast, from fetal medicine to assisted reproductive technique, surgery is one of the course the resident can choose but there is no dedicated training, comparatively to United Kingdom and USA.
Optimal care in endometriosis requires a standardized multi-disciplinary approach. Oncological management has brought to light the benefits of multidisciplinary teamwork with a better management of complex cases[9]. Referral tertiary centers would gather specialists of endometriosis: radiologist for imaging, gynecologists and ART specialists for pain and fertility management, and pelvic surgeons to treat complex pelvic impairment.

Conclusion

Multidisciplinary approach is the cornerstone of endometriosis treatment, in accordance with French and European guidelines. Initial training during residency does not allow gynecologists to perform complex pelvic procedures as required in DPE. Gynecologists can safely perform surgery to treat bowel or urinary endometriosis after specific additional training and practical experience. Colorectal and urologic surgeons remain actors of optimal management of patient as part of a care plan coordinated by gynecologists.

The authors have no conflict of interest

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