IRCAD
Sept 2021

Innovation in

4th edition

ENDO DUBAI 2019

21st - 23rd February 2019

Hotel Intercontinental Festival City, Dubai

Rare “endometrioses” and pain peritoneal pockets – ovarian remnant

Philippe R. Koninckx

Anastasia Ussia

Prof em KU leuven Belgium, Univ Oxford UK, Univ Sacro Cuore, Italy, Hon Prof Moscow Univ

Honorary Consultant UK

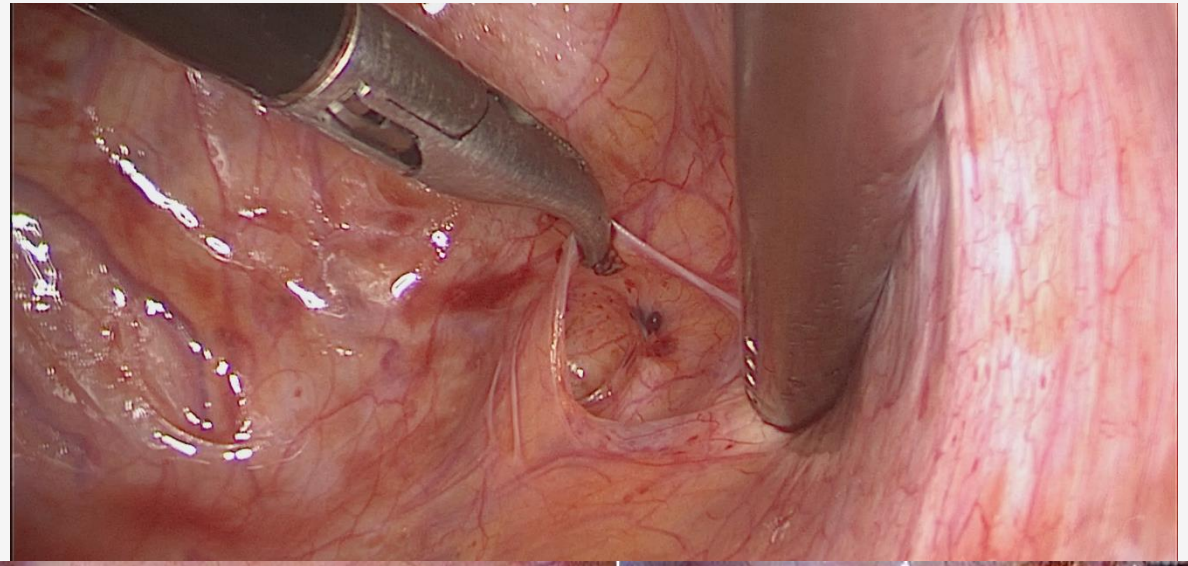
Director Research, Latiffa Hospital Dubai
Consultant Univ Sacro Cuore, Gemelli, Roma
Gruppo Italo Belga, Leuven –Rome, Belgium Italy.

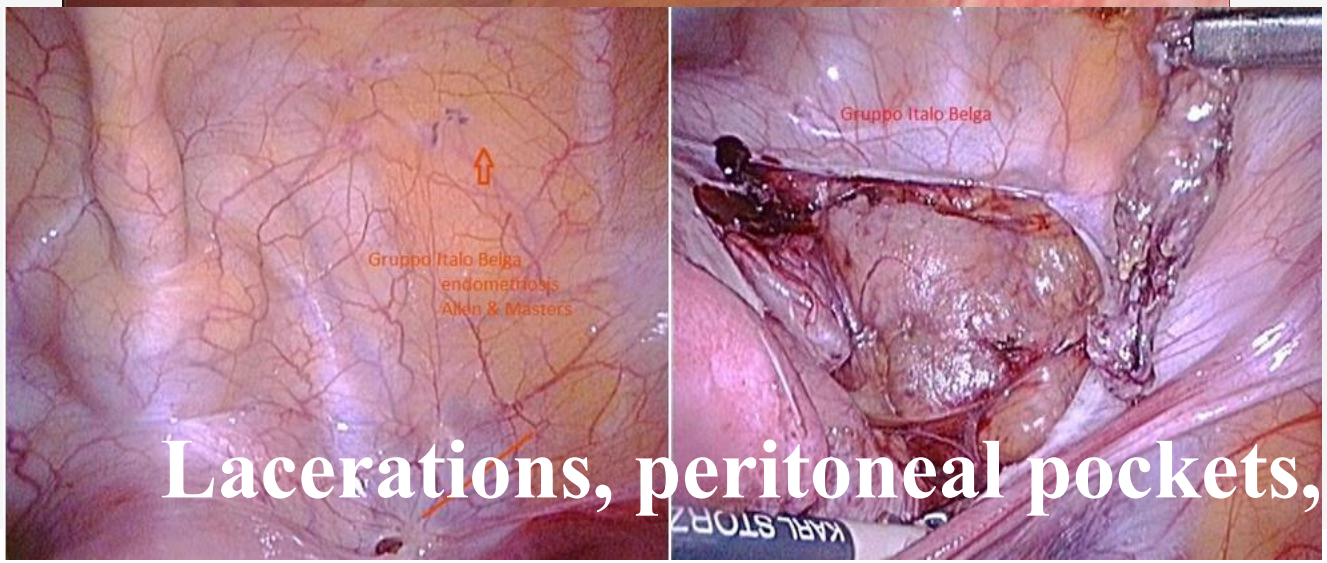
Disclosures: Shareholder Endosat NV

39 CME POINTS

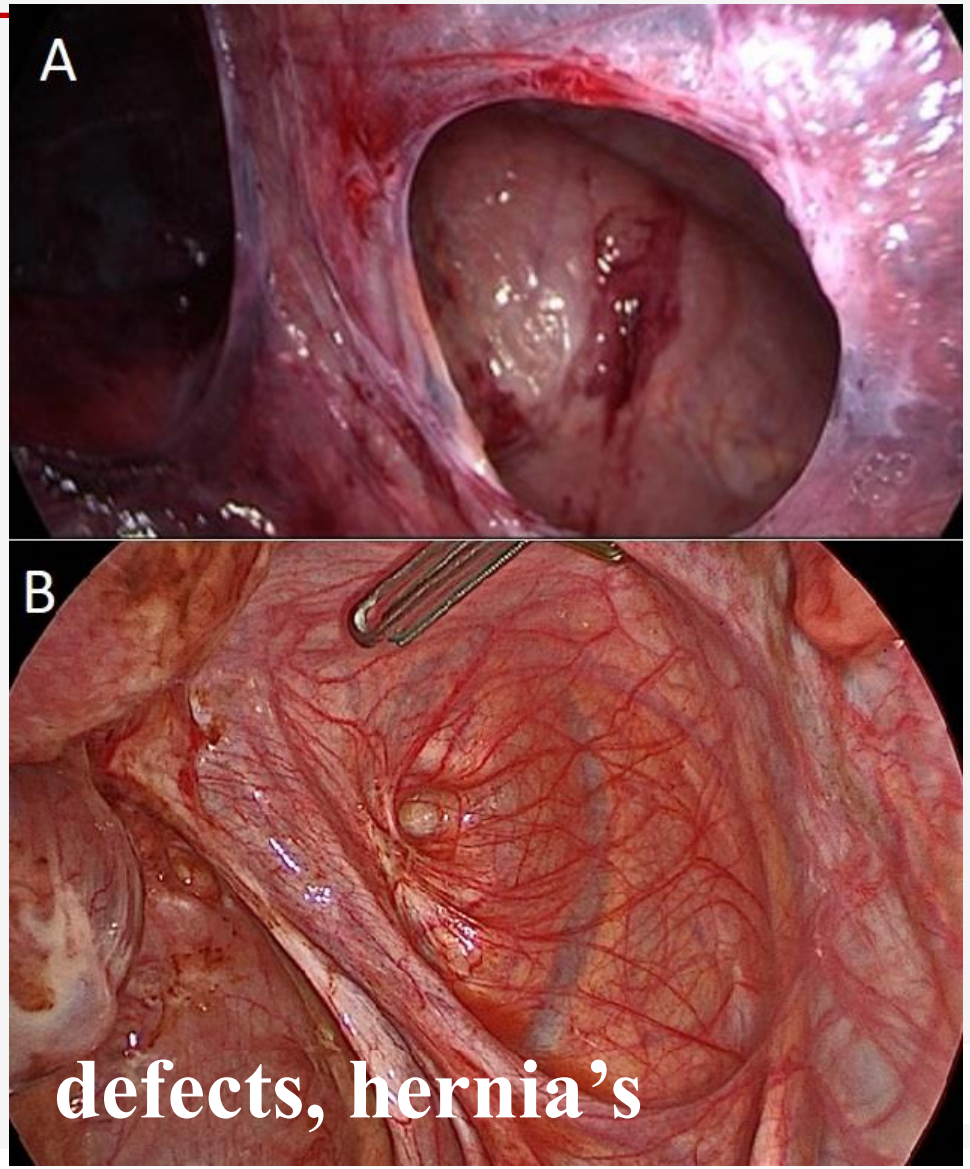
Chronic pelvic pain, nl clinical exam, US and MRI

Is this a cause of pelvic pain

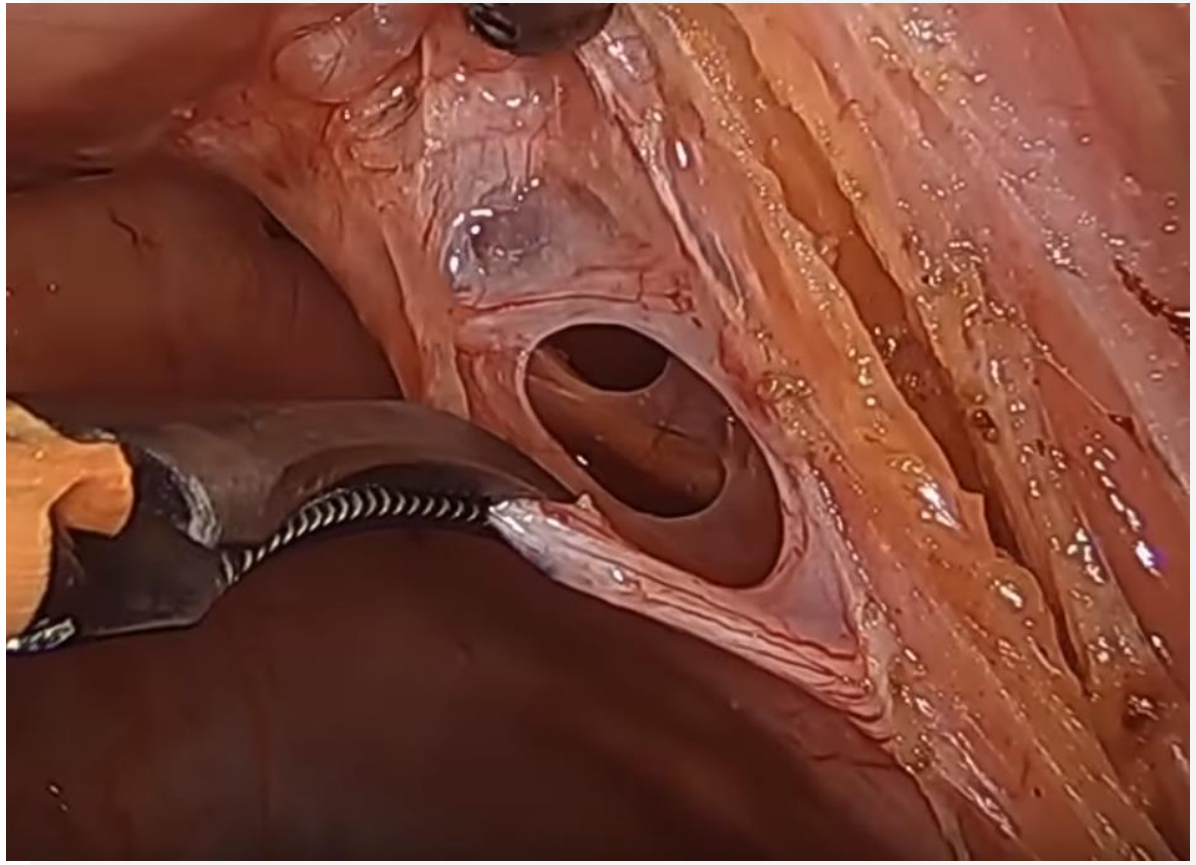




Lacerations, peritoneal pockets,



defects, hernia's



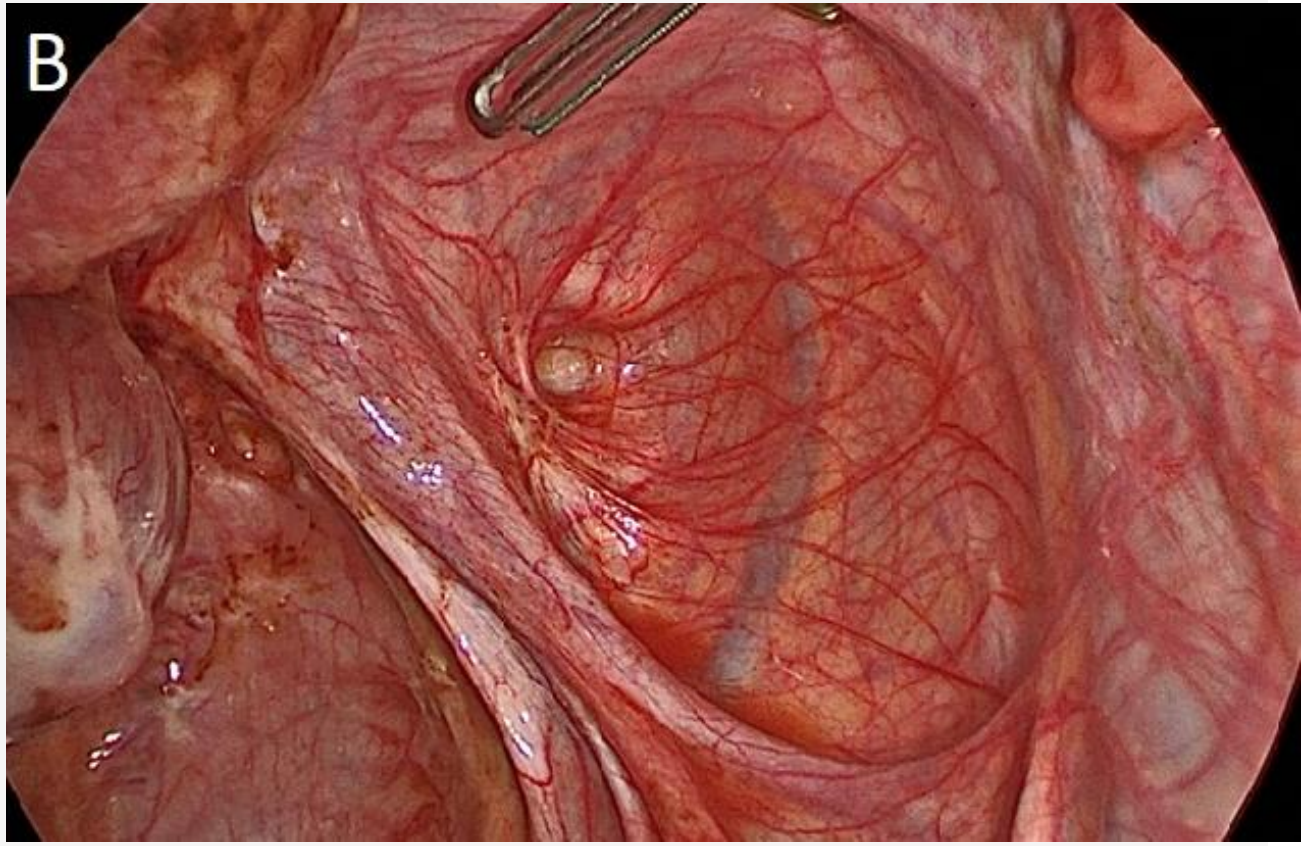
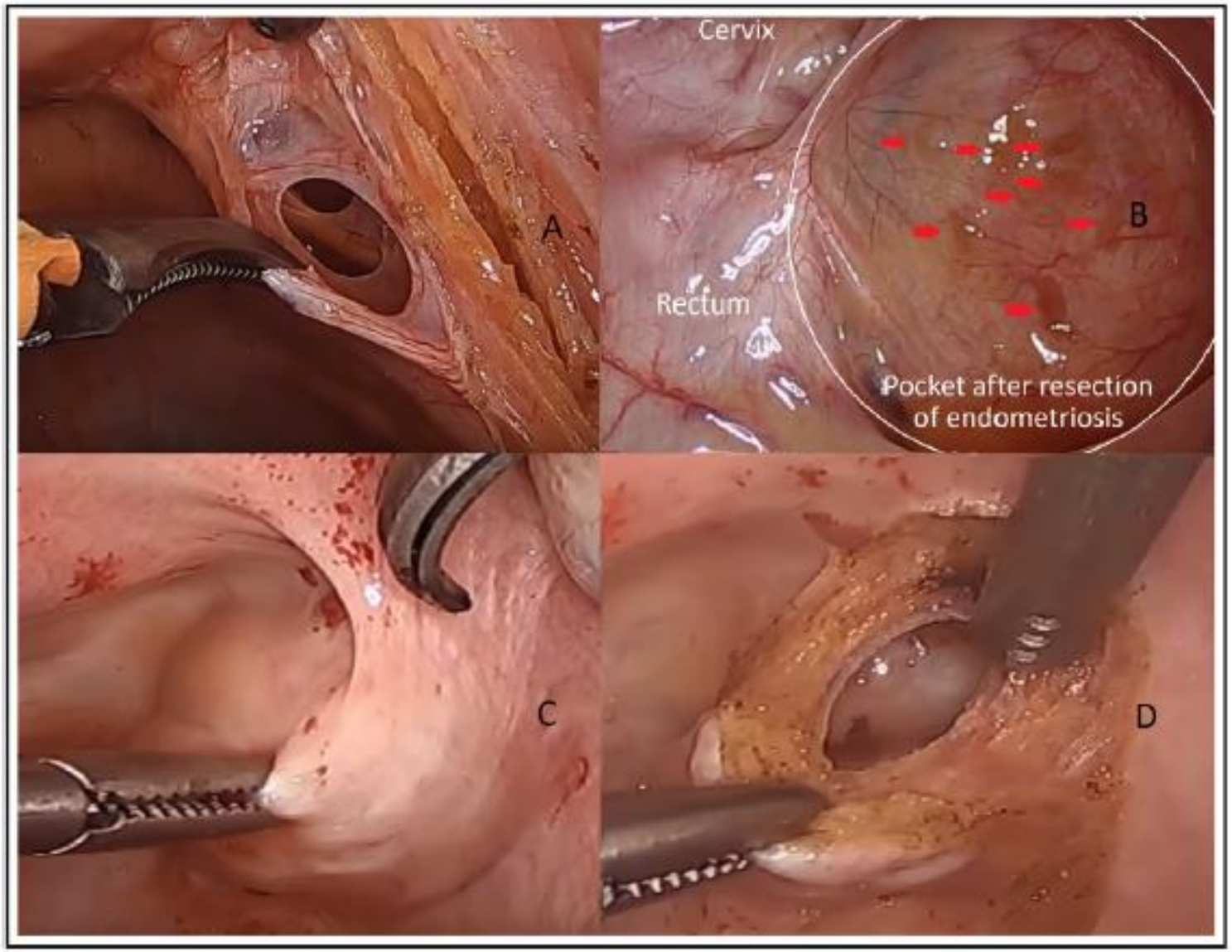
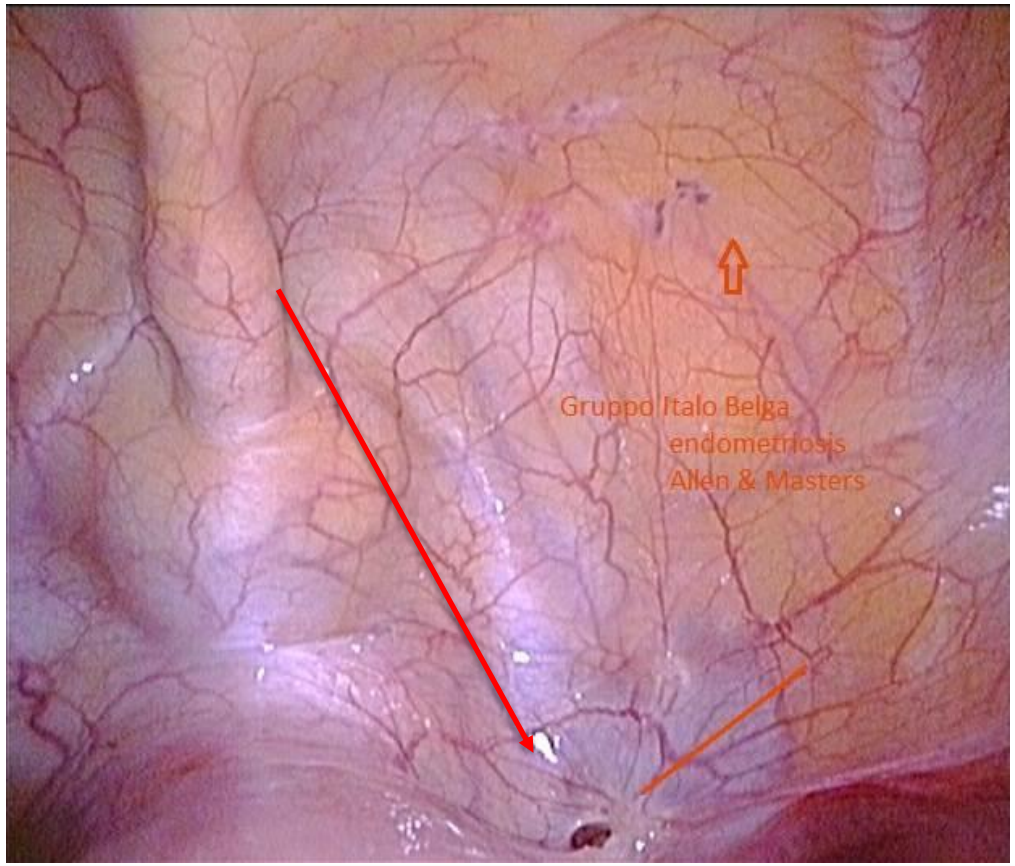

B

Figure 2. (A) Multilocular pockets with a smaller opening to the peritoneum[8] (used with permission). (B) Right perirectal post-excision pocket 5 years after excisional surgery. Arrows indicate flat endometriosis and stromal endometriotic polyps. The flat and polypoid nature can be seen in the video[36] beginning at 5:55 minutes (used with permission). (C and D) Hidden pocket before and during surgery[8] (used with permission).

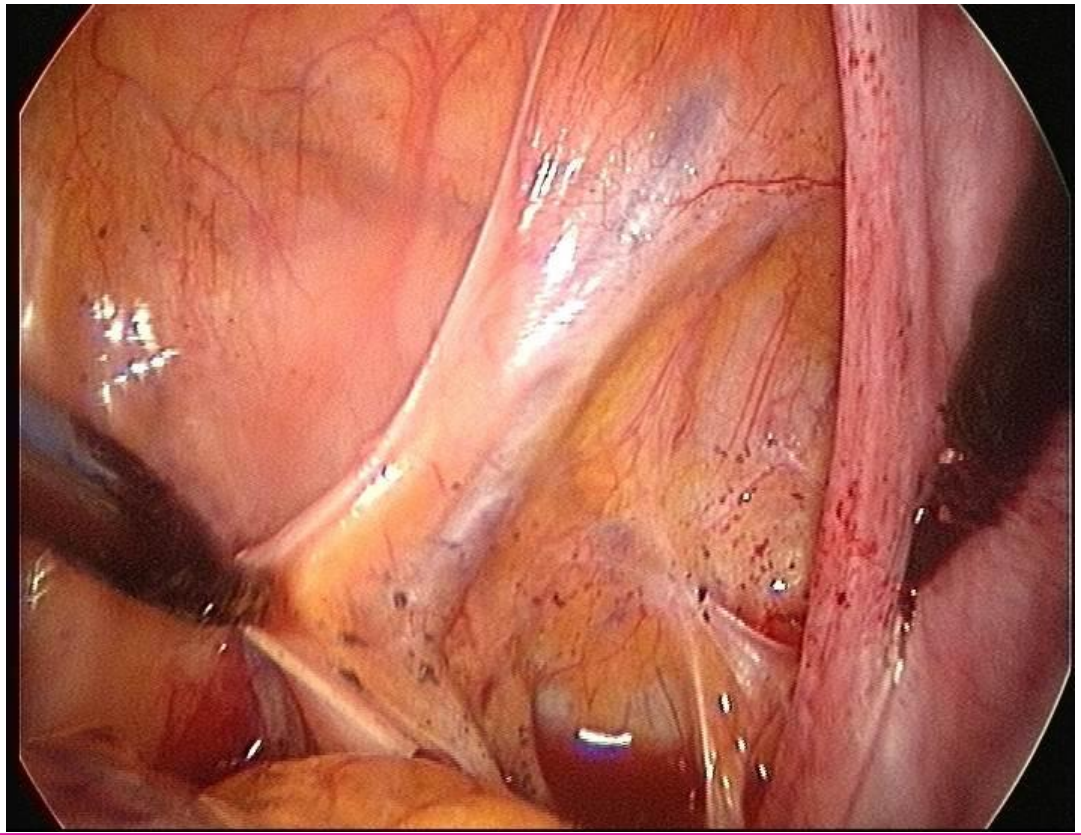


Peritoneal pockets: 2 types of pockets

- Deeper pockets medial of utero-sacrals with small peritoneal opening



- Depression/Pockets lateral of the utero-sacrals, eventually with spider



Allen-Masters

- In 1955…Allen and Masters = Uterine hypermobility due to lacerations of the utero-sacral ligaments : *Allen WM, Masters WH. Traumatic laceration of uterine support; the clinical syndrome and the operative treatment. Am J Obstet Gynecol 1955;70:500-13.*

Allen WM: The Allen-Masters syndrome revisited. Rev Fr Gynecol Obstet 1982, 77 (6):453-456 (Revue française de gynécologie et d'obstétrique)

The Allen-Masters syndrome revisited

W. M. ALLEN *

TRAUMATIC LACERATION OF UTERINE SUPPORT

The Clinical Syndrome and the Operative Treatment

WILLARD M. ALLEN, M.D., AND WILLIAM H. MASTERS, M.D., ST. LOUIS, MO.

TABLE III. PELVIC PATHOLOGY (28 CASES)

PATHOLOGY DEMONSTRATED	TOTAL CASES POSITIVE REPORT	
1. Third-degree retroversion of the uterus	28	
2. Serous fluid in pelvis (30-80 c.c.)	27	
3. Bilateral broad ligament laceration	22	
4. Unilateral broad ligament laceration	6	
Right		4
Left		2
5. Unilateral sacrouterine ligament laceration	5	
Right		3
Left		2
6. Bilateral sacrouterine ligament laceration	1	

TABLE I. PRESENTING COMPLAINTS (28 CASES)

SYMPTOMS DESCRIBED	NO. CASES
1. Dyspareunia	24
2. Excessive physical fatigue	24
3. Dysmenorrhea	22
4. Generalized pelvic distress	21
5. Specific localization of pelvic distress	19
6. Emotional instability	16
7. Metrorrhagia	12
8. Chronic headaches (occipital)	9
9. Menorrhagia	5
10. Genitourinary symptoms	5
11. Chronic nonspecific vaginal discharge	5
12. Premenstrual defecation pain	4

- Lewis MI. Small-bowell obstruction secondary to traumatic lacerations of the uterine supports. (The Allen-Masters syndrome). Dis Colon Rectum 1969;12:253-5.
- + many others (surgery literature)

FERTILITY AND STERILITY
Vol. 36, No. 6, December 1981
Printed in U.S.A.
Copyright © 1981 The American Fertility Society

PELVIC PERITONEAL DEFECTS AND ENDOMETRIOSIS: ALLEN-MASTERS SYNDROME REVISITED

DONALD L. CHATMAN, M.D., F.A.C.O.G.

- 650 women with pain
- 35 peritoneal defects
- 65 endometriosis

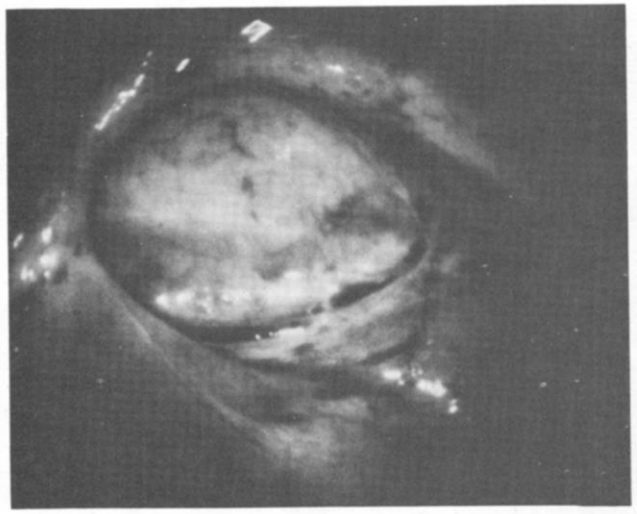


FIG. 3. Large cul-de-sac defect with endometriosis on the borders.

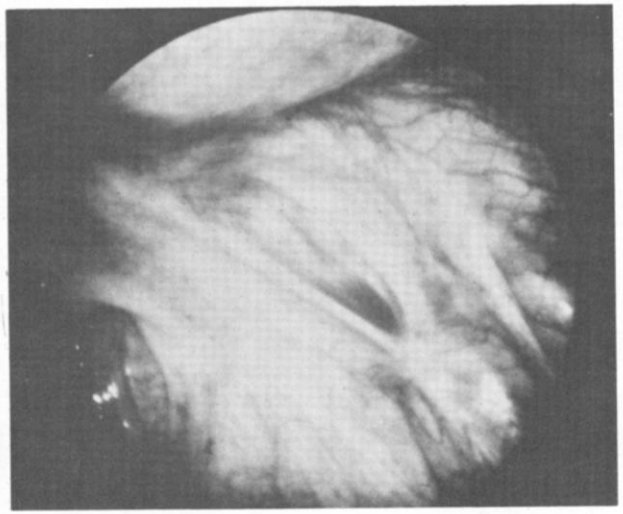


FIG. 4. Defect in the right uterosacral ligament with endometriosis.

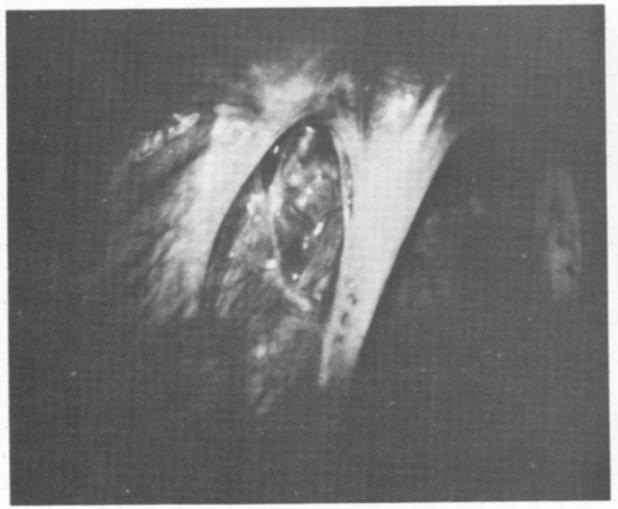


FIG. 1. Large defect in the left broad ligament with endometriosis.

This material may be protected by copyright law (Title 17 U.S. Code)

Endometriosis

0889–8545/89 $0.00 + .20

Embryologic Theory of Histogenesis of Endometriosis in Peritoneal Pockets

Ronald E. Batt, MD, and Richard A. Smith, MD, PhD†*

- In 1989…… Pockets as congenital defects
- Associated with endometriosis – described as spiders
- 1990 Mullerianosis

Conclusion 1

- Peritoneal pockets, Allen- Masters, broad ligament hernia are used interchangeably
- Etiology is probably embryological
- The association with endometriosis is not that clear since women with pain have endometriosis in 50%

- The question remains
  - A cause of pain ?
  - A ause of infertility

Patel B, Batt RE. Is the Allen Masters defect the most misunderstood lesion in gynecology? J Minim Invasive Gynecol 2014;21:1126-7.

2016

Deep Retraction Pockets, Endometriosis, and Quality of Life

Patrick P. Yeung Jr.[1], Ian Logan[2] and Jeffrey A. Gavard[3]*

TABLE 1 | Deep retraction pockets in women with deep dyspareunia.

Sample studied	Numerator/ denominator	%
Total patients	107	
Patients with endometriosis anywhere	88/107	82.2
Patients with DRP	25/107	23.4
Patients with endometriosis in a DRP	15/25	60.0
Total deep retraction pockets	31	
DRP with endometriosis	15/31	48.4
DRP that were clear (no visible lesions)	10/31	32.3
Clear DRP with endometriosis	3/10	30.0

DRP, deep retraction pocket.
*Compare with **Figure 2.***

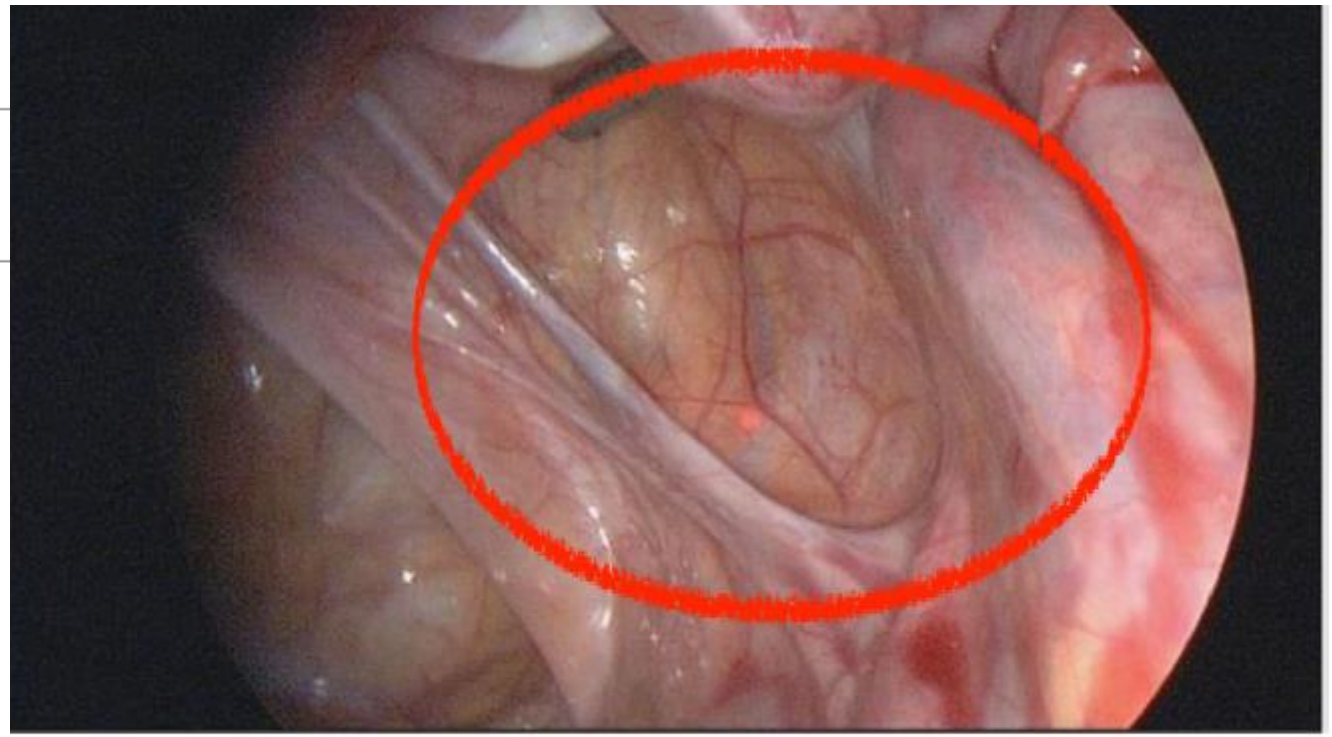


FIGURE 1 | This annotated photo shows the appearance of a deep retraction pocket, with a visible manifestation of endometriosis, seen at laparoscopy for pelvic pain. There are abnormal red and white lesions suspicious for endometriosis at the base of the pocket.

- Conclusion : unclear whether pockets alone cause pain

TABLE 4 | Pre/postoperative pain and quality of life data for 107 women by deep retraction pockets.[f]

Characteristic	*N*	Preoperative score[c] (median)	Postoperative score[d] (median)	Difference score[e] (post–pre) (median)	*p*-value
Deep pain with intercourse score[a]					
Deep retraction pockets	13	6.0	4.0	–2.0	<0.01
Endometriosis	8	5.0	0.0	–3.0	<0.05
No endometriosis	5	8.0	8.0	–1.0	0.50
No deep retraction pockets	32	6.0	4.0	–2.0	<0.001
Pain with bowel movements score[a]					
Deep retraction pockets	11	7.0	0.0	–6.0	<0.05
Endometriosis	7	7.0	0.0	–6.0	0.06
No endometriosis	4	7.0	2.0	–5.5	0.31
No deep retraction pockets	25	6.0	0.0	–4.0	<0.001
Chronic pelvic pain score[a]					
Deep retraction pockets	11	7.0	0.0	–3.0	<0.01
Endometriosis	7	7.0	0.0	–3.0	<0.05
No endometriosis	4	6.5	4.0	–2.5	0.28
No deep retraction pockets	26	7.0	0.0	–4.0	<0.001
Quality of life score[b]					
Deep retraction pockets	12	55.0	80.0	25.0	<0.05
Endometriosis	7	50.0	90.0	30.0	<0.01
No endometriosis	5	60.0	70.0	15.0	0.53
No deep retraction pockets	33	50.0	80.0	25.0	<0.001

Prevalence of Endometriosis and Peritoneal Pockets in Women with Infertility and/or Pelvic Pain

Philippe R. Koninckx, MD, PhD;[1,2,3,4,5,6] Anastasia Ussia, MD;[4,6] Jörg Keckstein, MD, PhD;[7,8] Leila Adamyan, MD, PhD;[9,10] Arnaud Wattiez, MD, PhD;[1,11] Dan C. Martin, MD[12,13]

J Obs Gyn Ca, 2021, 43, 935

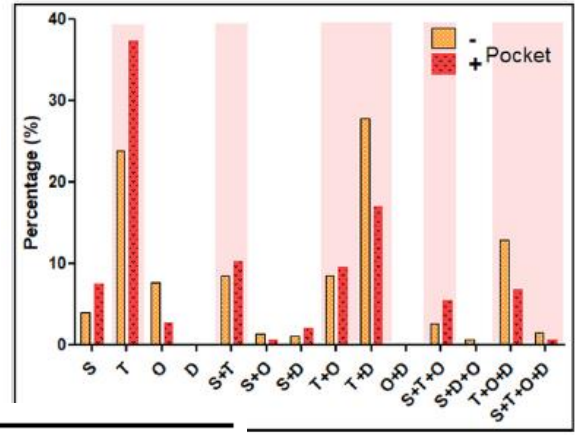


Table. Prevalence of subtle, typical, cystic ovarian, and deep endometriosis lesions in women with (P+) and without (P–) peritoneal pockets

	Total; n = 4497	Infertility only; n = 1896	All pain[a]; n = 2601	Pelvic pain; n = 1953	Infertility and pelvic pain; n = 648
Pockets, no. (%)	191 (4.2)	90 (4.7)	101 (3.9)	69 (3.5)	32 (4.9)
Endometriosis, %, P+; P–	77; 63 ($P = 0.0001$)	76; 50 ($P < 0.0001$)	76; 76 (NS)	75; 68	84; 86
Subtle	24; 16 ($P = 0.006$)	23; 16 ($P = 0.04$)	23; 24 (NS)	20; 16	31; 19
Typical	67; 54 ($P = 0.0002$)	66; 42 ($P < 0.0001$)	68; 66 (NS)	64; 58	72; 74
Cystic ovarian	20; 22 (NS)	14; 13 (NS)	14; 25 (NS)	19; 22	38; 44
Deep	20; 27 ($P = 0.04$)	8; 9 (NS)	30; 37 (NS)	30; 37	31; 54

[a] Women with pelvic pain and those with pelvic pain and infertility as the indication for surgery. NS: not significant.

No change with age

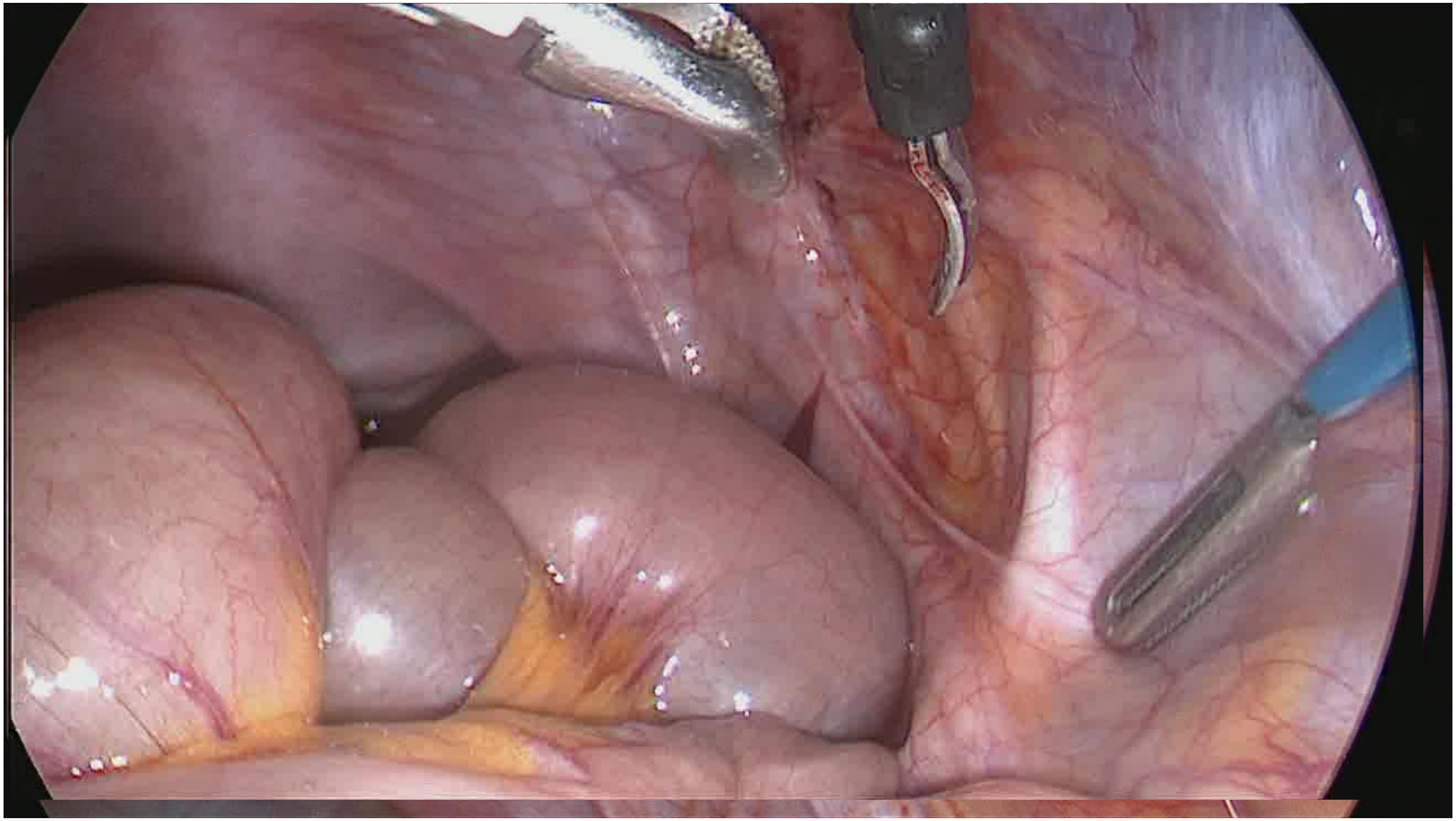
Pain score = pockets (P = 0.0026) + number of subtle lesions (P = 0.001) + area of typical lesions (P = 0.030) + diameter of cystic ovarian endometriosis (P = 0.051) + volume of deep endometriosis (P < 0.0001)

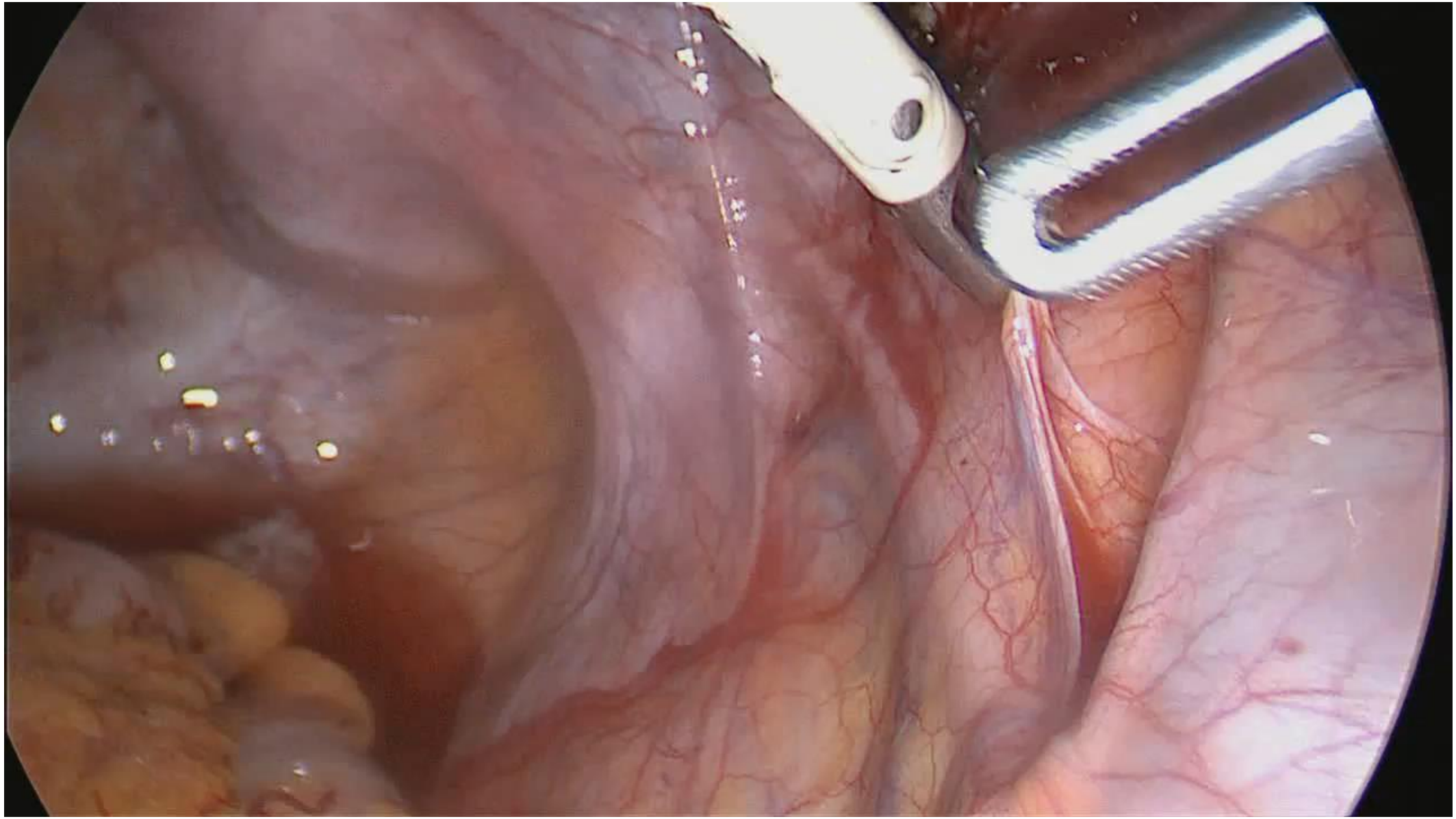
Pockets= independent predictor of pelvic pain in addition to endometriosis (Multivariate logistic regression).

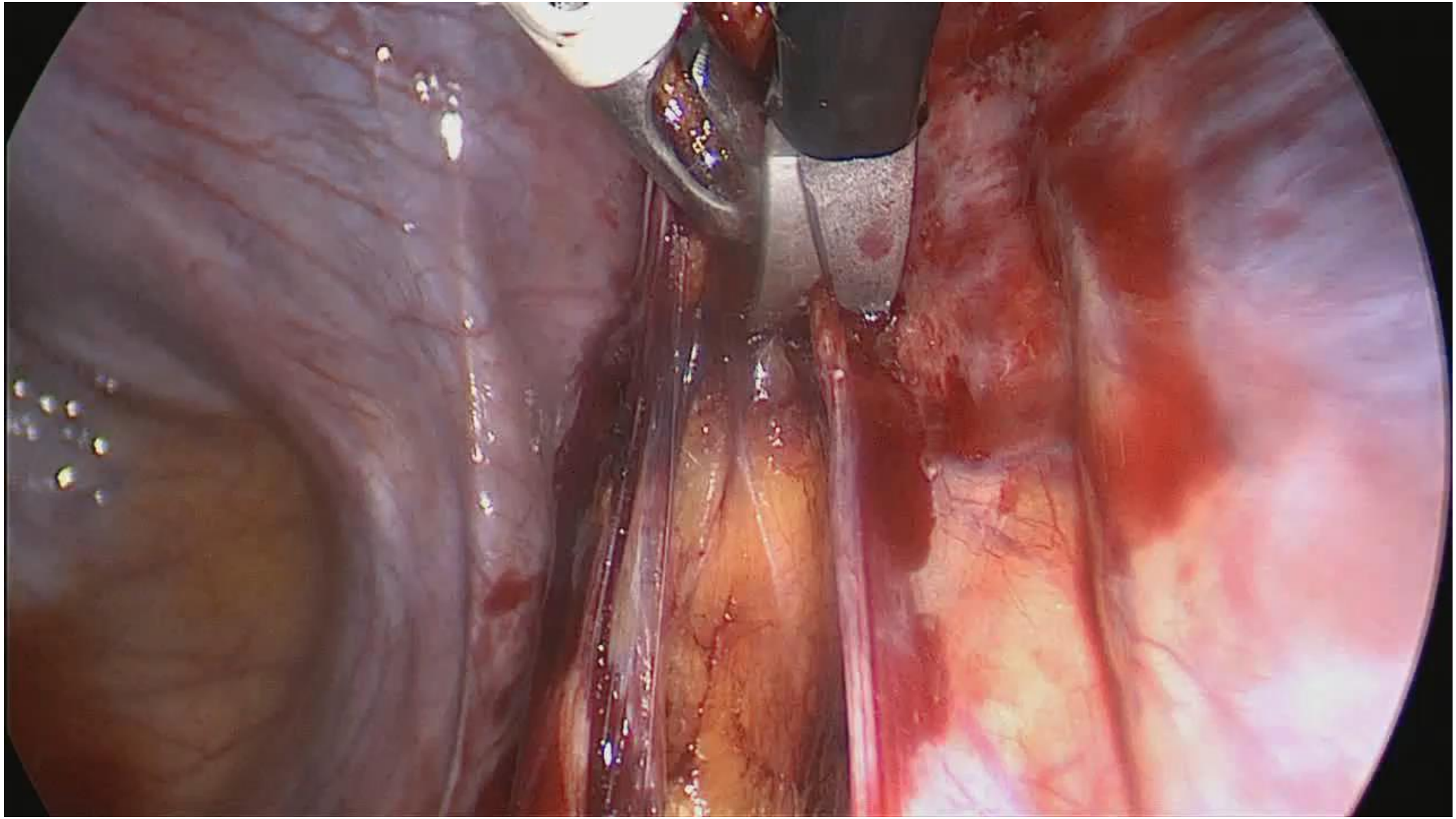
Why pain : 2 thin women

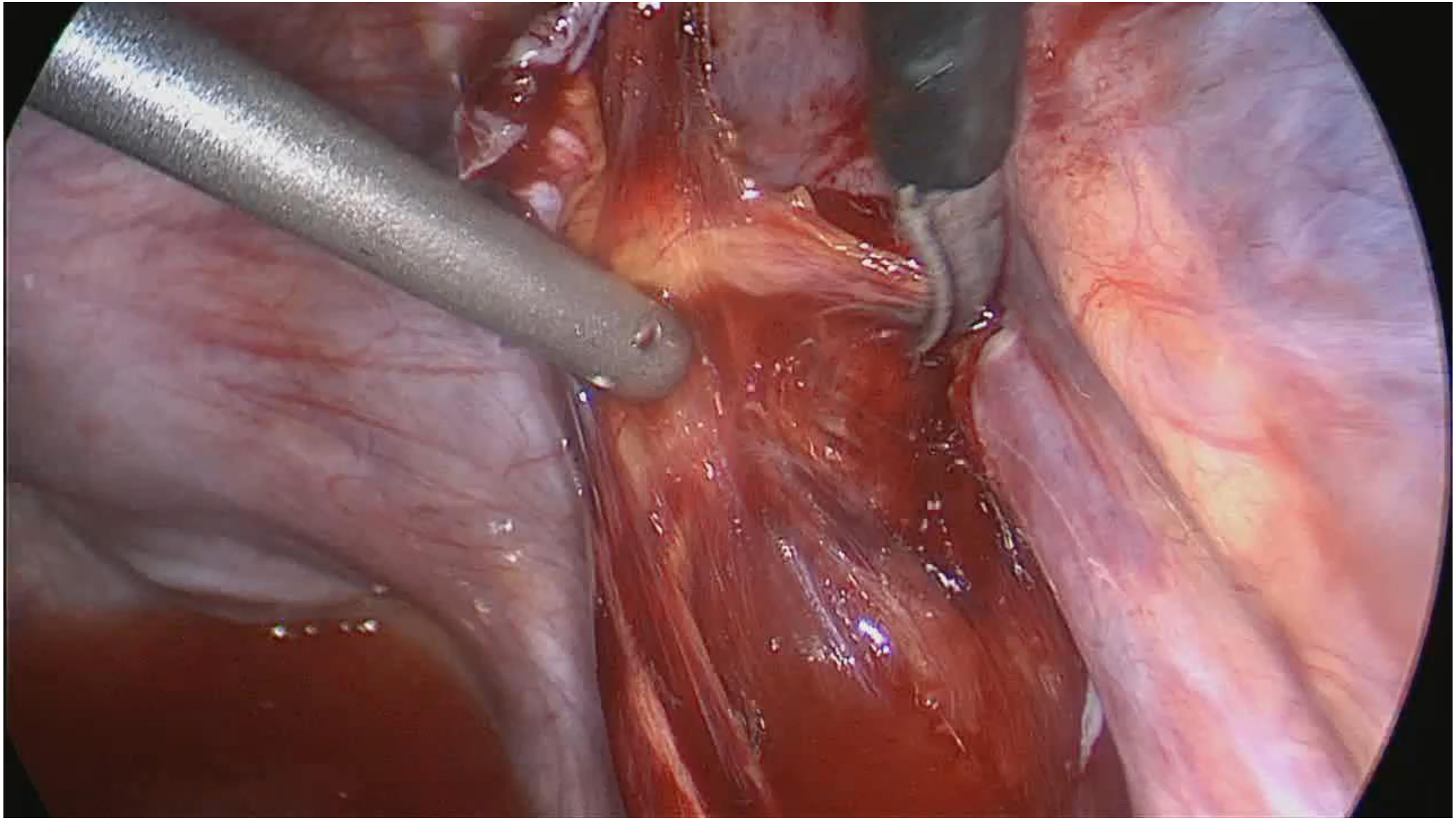
- Severe neuropathic pain over nervus obturatorius
- Hypogastric pain
- Several laparoscopies

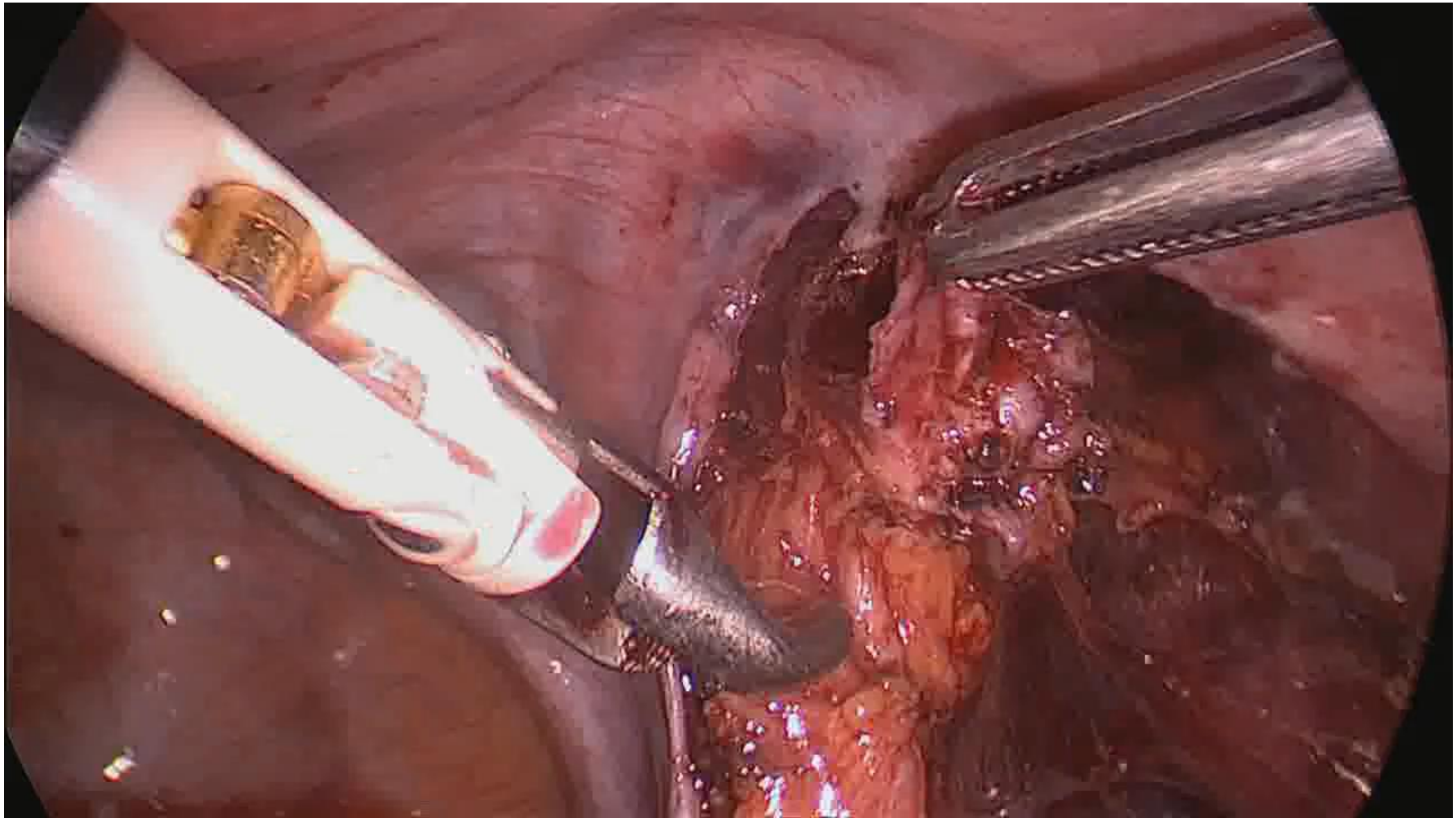
34 year old ; pain +++

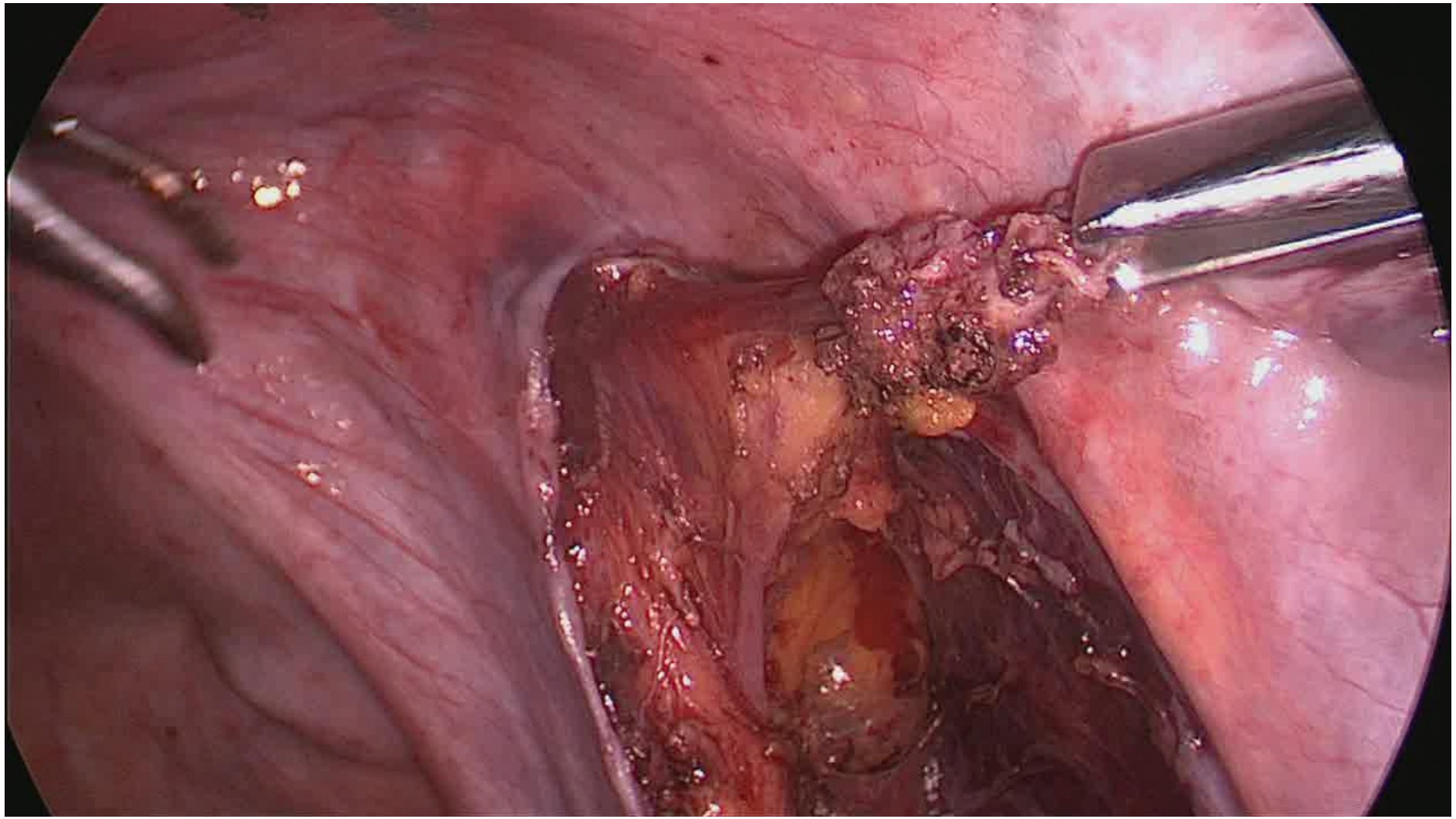




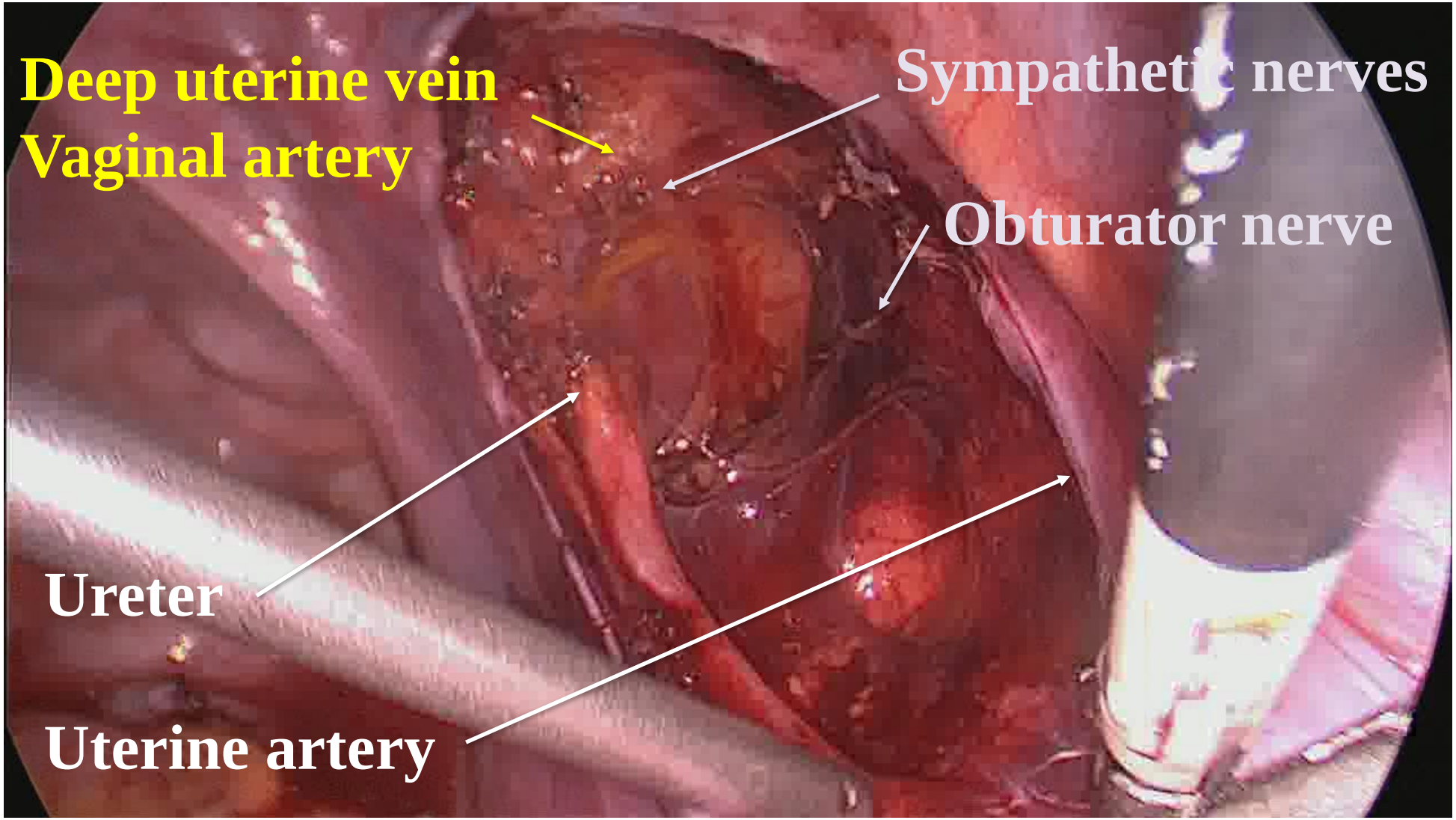


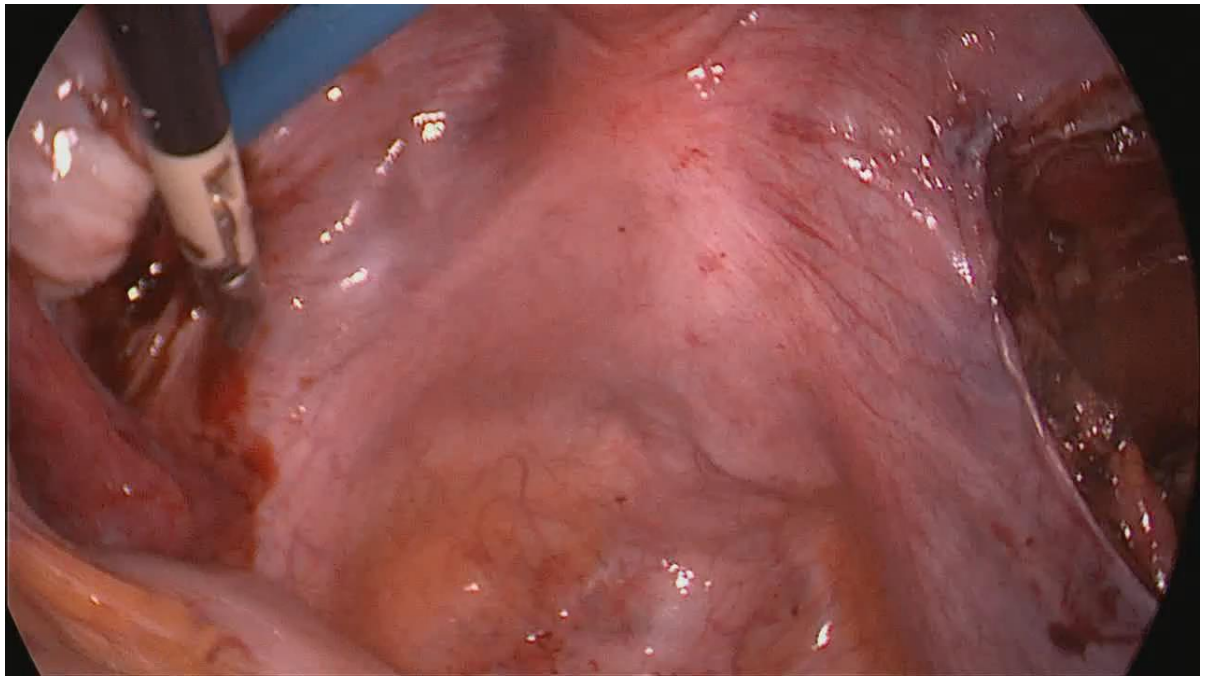


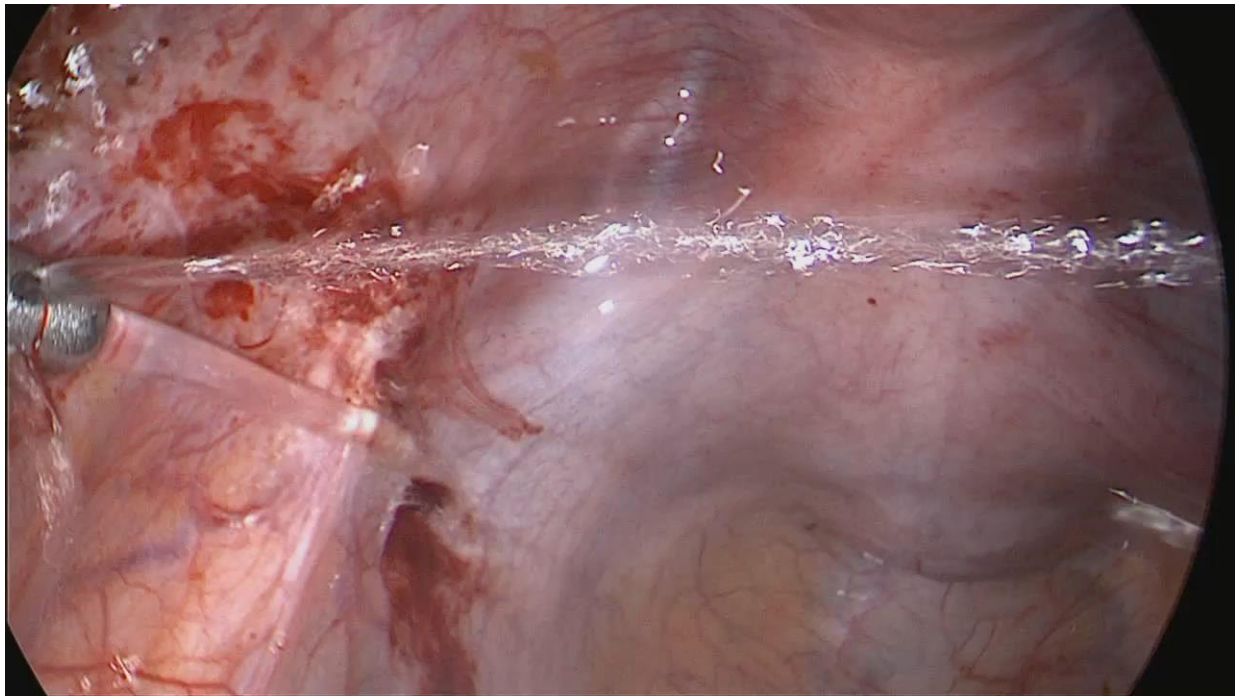


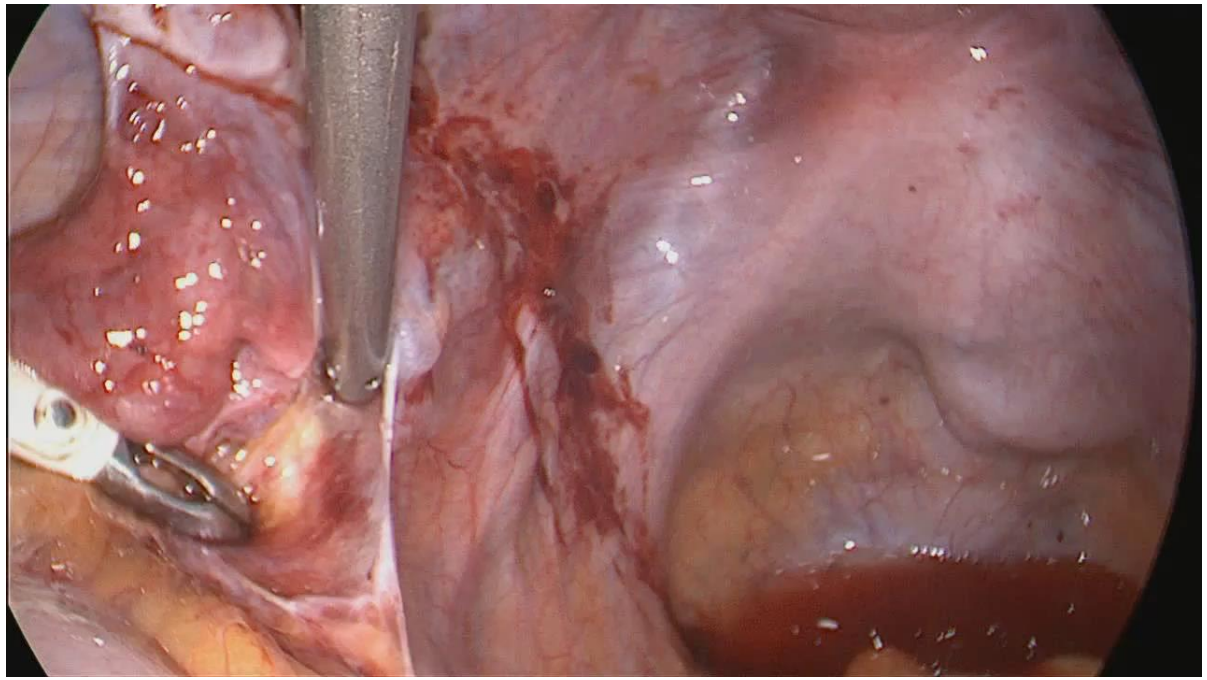


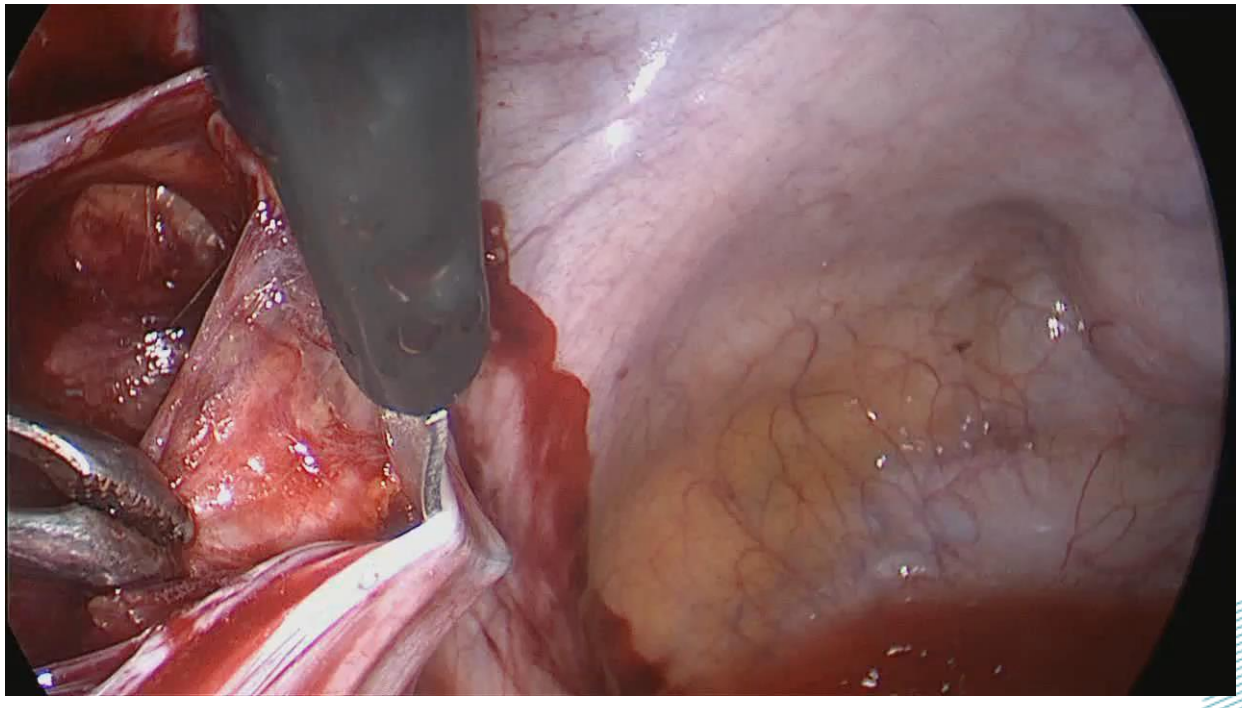
The Latzko space : very close to the nerves











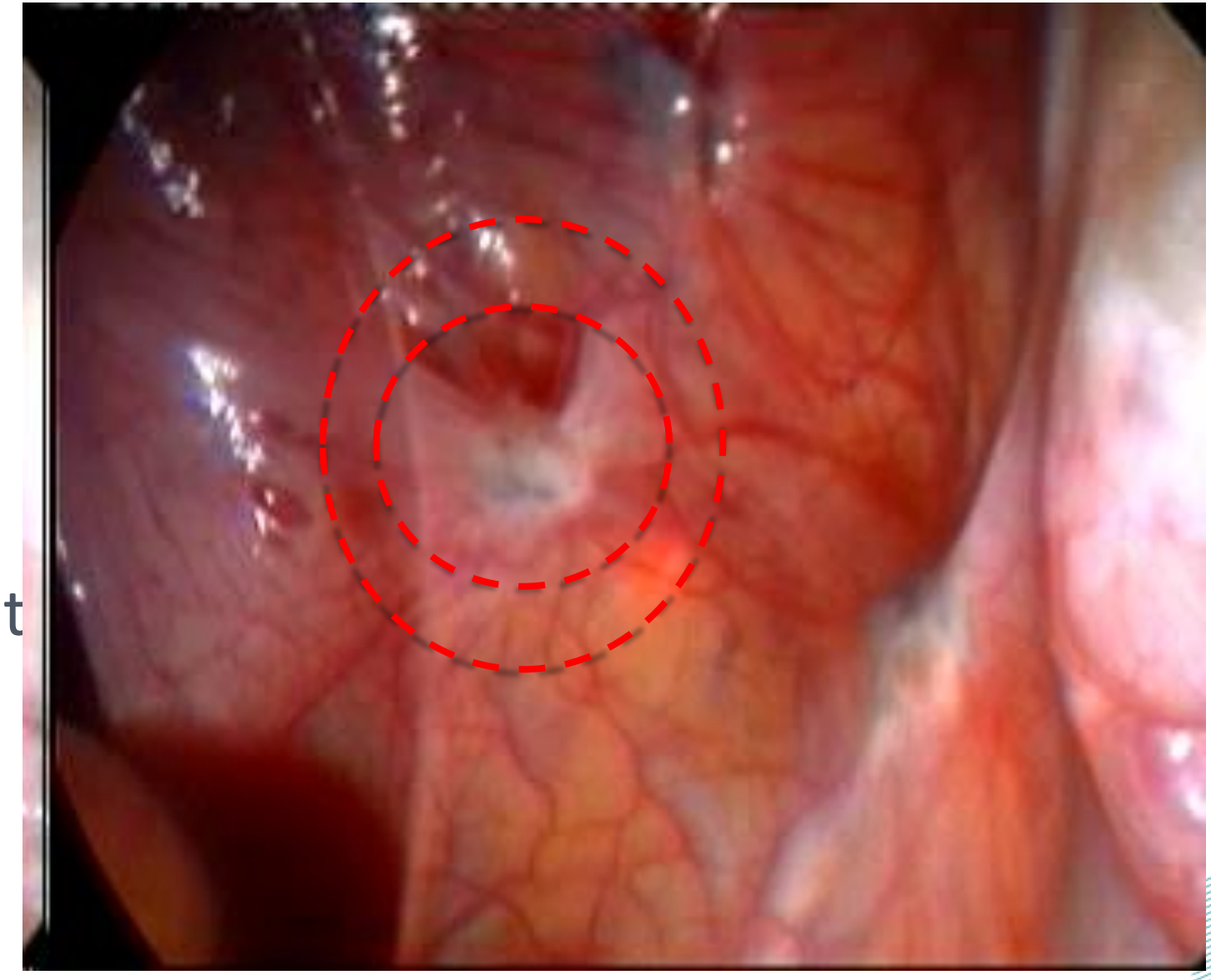
Why pain ?

- No direct contact between endometriosis and obturator nerve

- Short distance between endometriosis and obturator nerve and inferior hypogastric plexus

Endometriosis and Pain

- Not all lesions painful
- Variable distance around lesions
- ? The underlying G-E incident

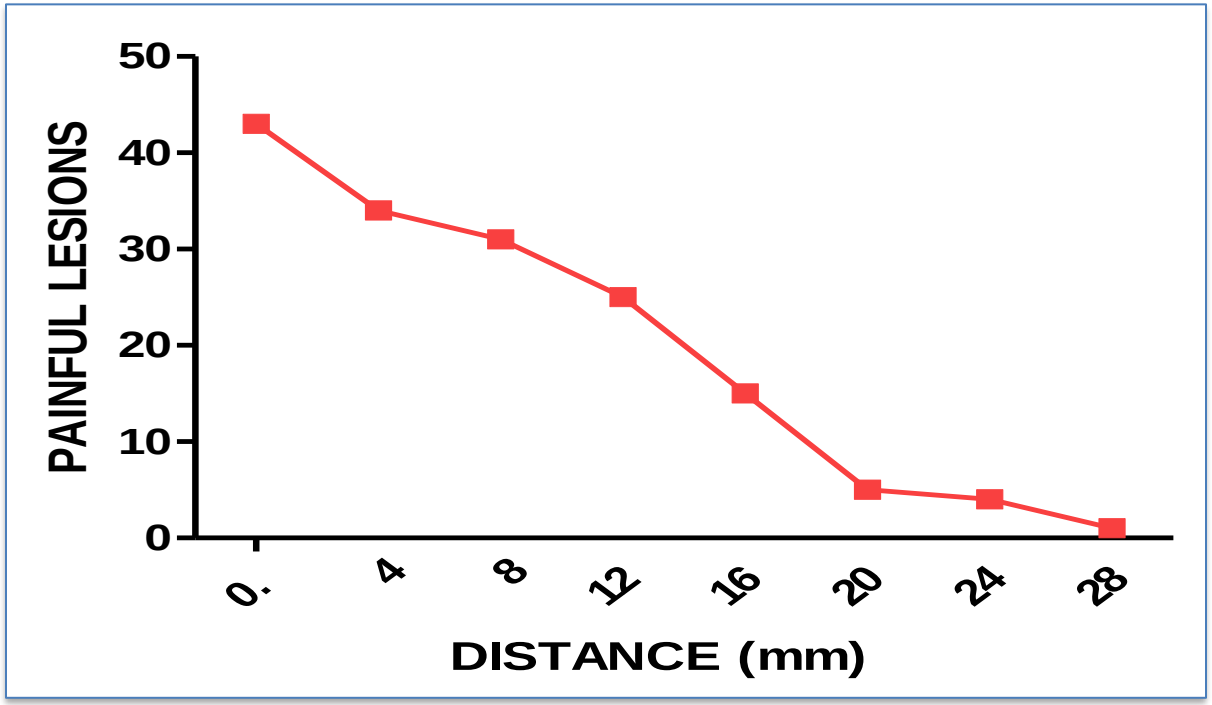


Pain Mapping of Endometriosis: local anaesthesia

- Type of lesion : Pain in

Type of lesion	%
Clear Lesion	32
Red Vascular Lesion	37
White Scar Lesion	20
Black Lesion	11

- Variable pain
  - Variable nociceptor activation -> 3cm



Demco L. Review of pain associated with minimal endometriosis. *JSLS* 2000;4: 5-9; Demco L. Mapping the source and character of pain due to endometriosis by patient-assisted laparoscopy. *J Am Assoc Gynecol Laparosc* 1998;5: 241-245.

May 2002, Vol. 9, No. 2 The Journal of the American Association of Gynecologic Laparoscopists

Laparoscopic Findings, Management, Histopathology, and Outcomes in 25 Women with Cyclic Leg Pain

George A. Vilos, M.D., Andrew W. Vilos, HBSc, and Jeffrey J. Haebe, M.D.

N=25 cyclic sciatalgia

- after pocket resection (even without visible endometriosis)
  - 4 improved
  - 2 unchanged

Review Article

J Minim Invasive Gynecol 2008;15:262-7

Tension-free Vaginal Tapes and Pelvic Nerve Neuropathy

Roberta Corona, MD*, Carlo De Cicco, MD, Ron Schonman, MD, Jasper Verguts, MD, Anastasia Ussia, MD, and Philippe R. Koninckx, MD, PhD

- TVT -> severe neuropathic pain of nervus obturatorius right
- Laparoscopy
  - Mesh with fibrosis
  - 1.5 cm from obturator nerve
  - Excision of fibrosis
- Pain-free

- Concept of endometriosis causing pain at distance

Endometriosis Can Cause Pain at a Distance

Philippe R. Koninckx, MD, PhD;[1,2,3,4,5] Anastasia Ussia, MD;[4,6] Roy Mashiach, MD;[7] George Vilos, MD;[8] Dan C. Martin, MD[9,10]

J Obstet Gynaecol Can 2021 Vol. 43 Issue 9 Pages 1035-1036

- Up to 3 cm
- All nerves are in reach
- Treat peritoneal pockets
- When nerve exploration ?

Endometriosis and pelvic nerves

- Sciatic nerve Pudendal nerve sacral roots Sympathetic nerves

- Consider the distances in the pelvis
  - Nodule on the ischeal spine

- Dilemma : to explore and dissect or not

- My impression: do not dissect nerves liberally. Real nerve invasion is rare

Invasion or nociceptor activation or neuroinflammation

Variable pain in individual lesions
Vadiable distance of nociceptor activation

Ovarian remnant syndrome

Philippe R. Koninckx

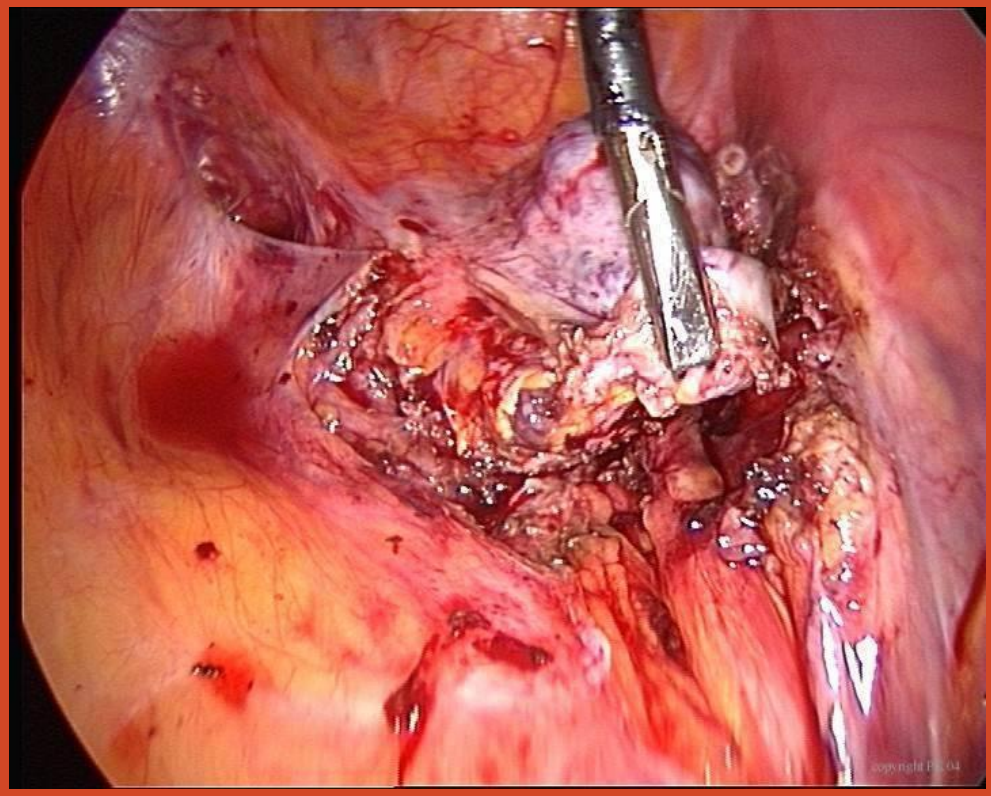
Prof em KU leuven Belgium, Univ Oxford UK, Univ Sacro Cuore, Italy, Hon Prof Moscow Univ ; Honorary Consultant UK

Director Research, Latiffa Hospital Dubai

Consultant Univ Sacro Cuore, Gemelli, Roma

Gruppo Italo Belga, Leuven –Rome, Belgiumly.

Disclosures: Shareholder Endosat NV

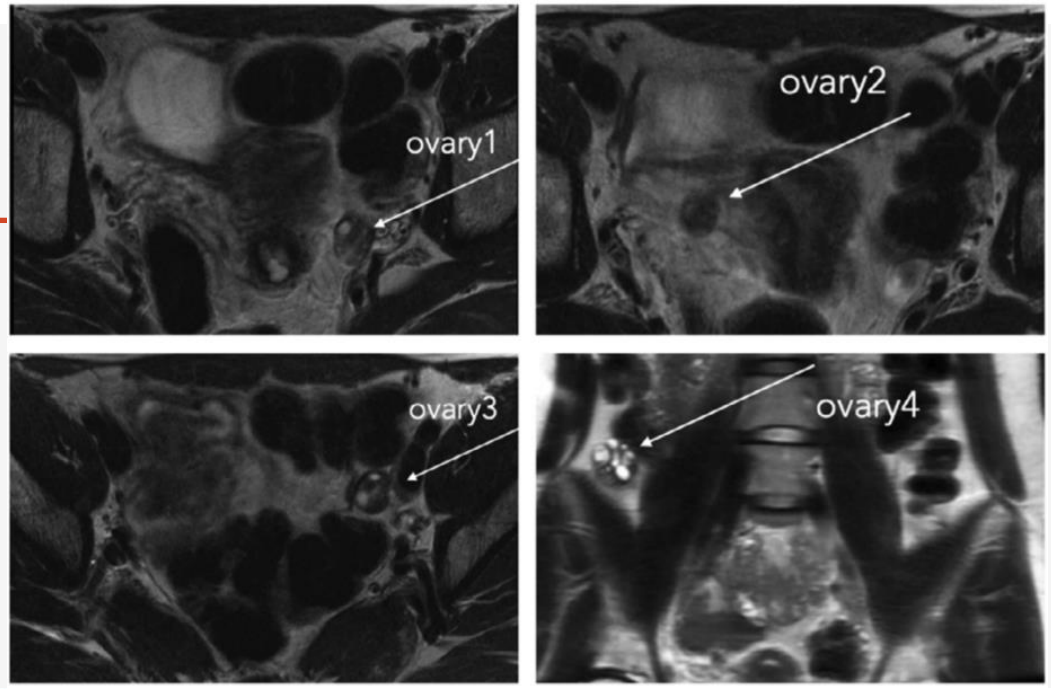


Definitions of Ovarian remnant

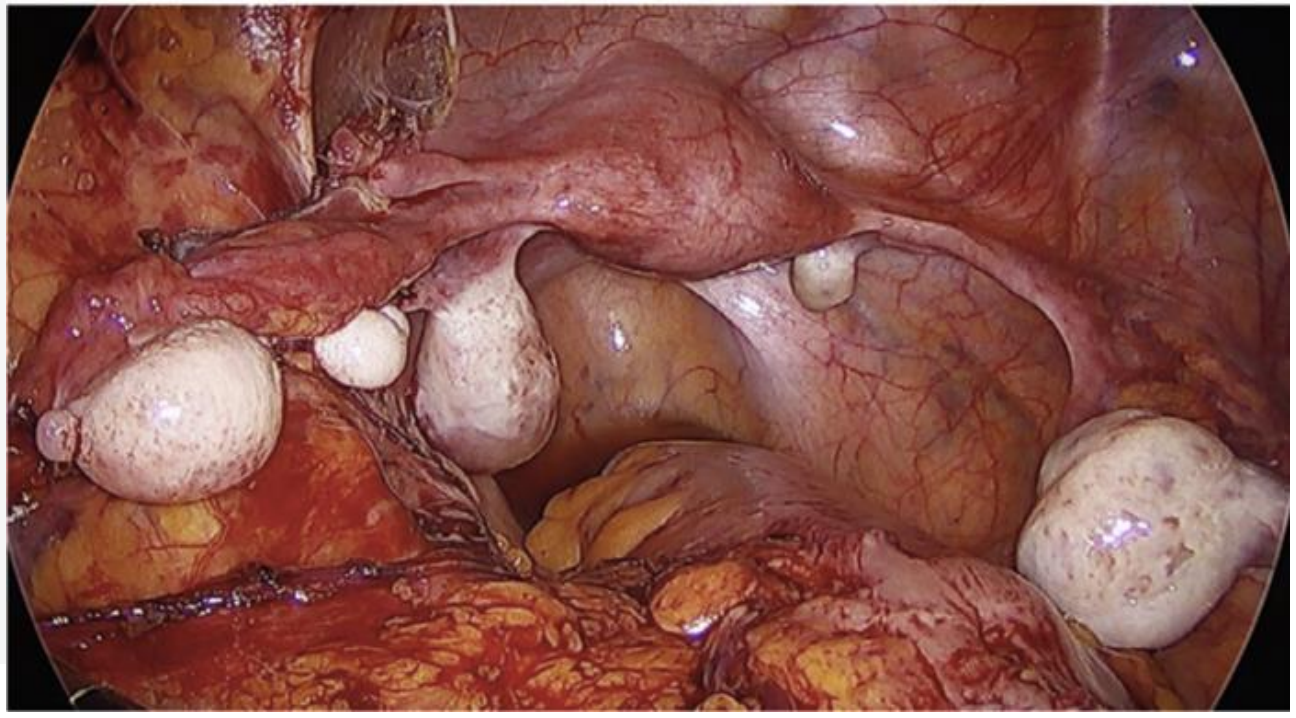
- (Functional) ovarian tissue after ovariectomy
  - Ectopic / accessory /supernumerary n=127
    - Incidence 1/30,000- 7/90,000
    - up to 26% to 75% other anomalies müllerian anomalies, renal agenesis, duplicated ureters, bladder diverticulum, accessory adrenal glands, and a lobulated liver
    - **Supernumerary ovary**: :a disruption of the normal gonadocyte migration from the yolk sac endoderm through the dorsal mesentery before reaching thegenital ridge during embryogenesis
    - **Accessory ovary** : additional ovaries that are found along the genital ridge within any of the gynecologic ligaments.
  - Incomplete ovariectomy
- Fibrosis

Accessory ovary

- Functional ovarian tissue after ovariectomy



- MOVILLA P, OHLIGER M, WOOD S. Prepare for the Unexpected: Accessory Ovaries with Abernethy Malformation. J Minim Invasive Gynecol 2019;26:977-82

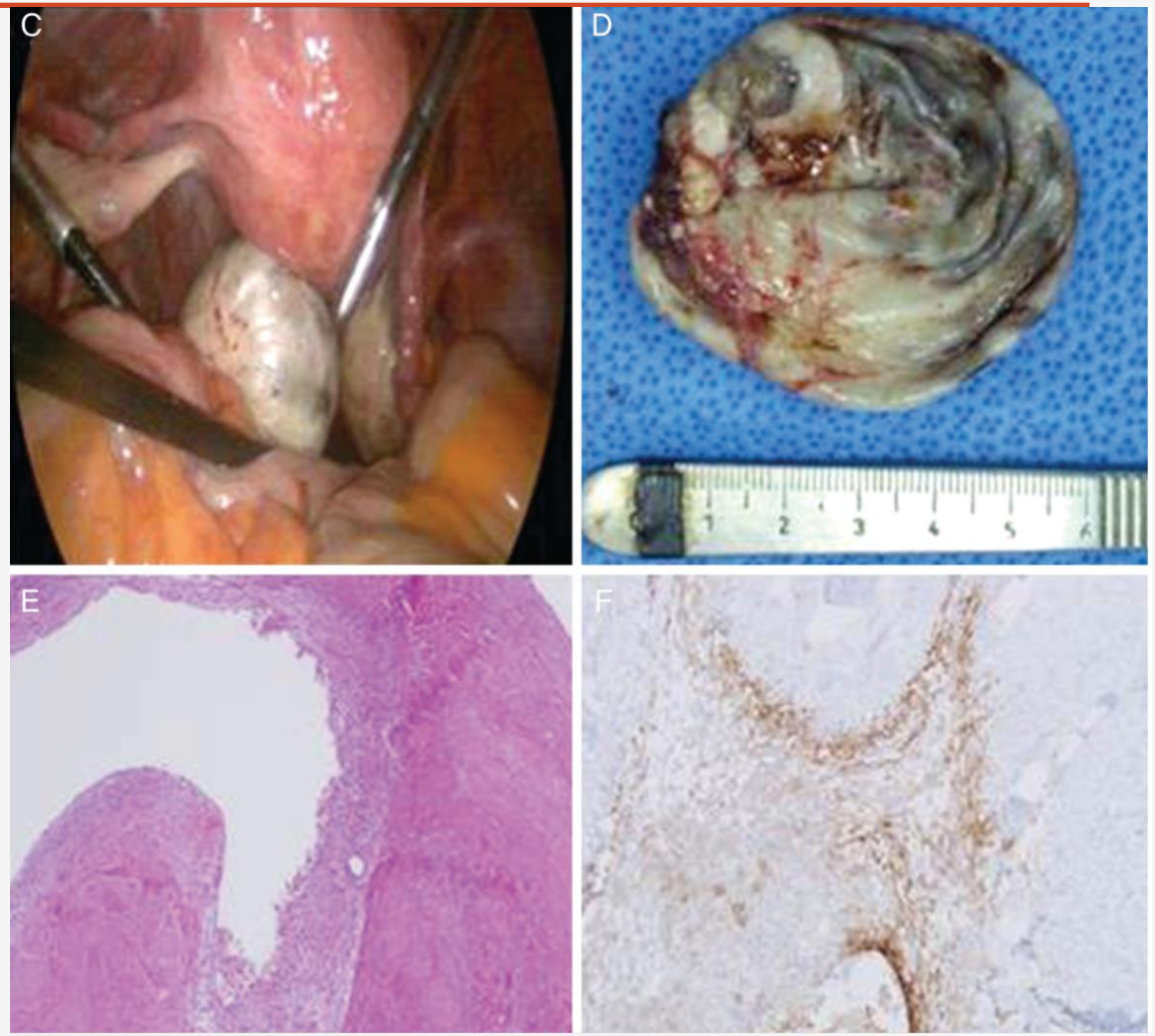


Supernumerary ovary

- Lim CK, Kim HJ, Pack JS, et al. Supernumerary ovary on recto-sigmoid colon with associated endometriosis. Obstet Gynecol Sci 2018;61:702-06.

Table 1. Site and diseases in 18 cases with tumors and/or endometriosis originating in a supernumerary ovary

Case	Authors	Reported Year	Age	Site	Diseases
1	Kriss [11]	1947	49	Omentum	Cystic teratoma
2	Wharton [1]	1959	37	Pelvic	Granulosa cell carcinoma
3	Wharton [1]	1959	39	Side of the right ovary	Serous cystadenoma
4	Hogan et al. [12]	1967	21	Omentum	Cystic teratoma
5	Printz et al. [5]	1973	23	Left retroperitoneum	Mucinous cystadenocarcinoma
6	Huhn [13]	1975	36	Left retroperitoneum	Mucinous cystadenoma
7	Roth and Ehrlich [14]	1977	48	Omentum	Cystic teratoma
8	Cruikshank and van Drie [15]	1982	36	Left retroperitoneum	Adenocarcinoma
9	Mercer et al. [16]	1987	34	Omentum	Cystic teratoma
10	Barik et al. [18]	1991	45	Omentum	Fibroma, Meig's syndrome
11	Barik et al. [18]	1991	28	On pregnant uterus	Endometrioma
12	Besser and Posey [19]	1992	30	Left retroperitoneum	Mucinous adenocarcinoma
13	Badawy et al. [7]	1995	32	Retrouterine	Serous adenocarcinoma
14	Irving and Clement [3]	2011	21	Omentum	Cystic teratoma
15	Kamiyama et al. [20]	2013	47	Left retroperitoneum	Serous adenocarcinoma
16	El-Gohary et al. [17]	2015	20	Left retroperitoneum	Endometrioma
17	Ogishima et al. [8]	2016	40	Rectovaginal pouch	Cystic endoterioma and fibroma
18	Present case	2016	42	Anterior sigmoid colon	Cystic endometrioma



Supernumerary ovary

- OGISHIMA D, SAKAGUCHI A, KODAMA H, et al. Cystic Endometrioma with Coexisting Fibroma Originating in a Supernumerary Ovary in the Rectovaginal Pouch. Case Rep Obstet Gynecol 2017;2017:7239018

FIGURE 1: The rectovaginal mass on pelvic MRI (T2-weighted, sagittal line). The mass with multilocular cyst (indicated by C) and solid (indicated by S) components and a maximal diameter of 9 cm locates in the rectovaginal pouch. The uterus is indicated with an

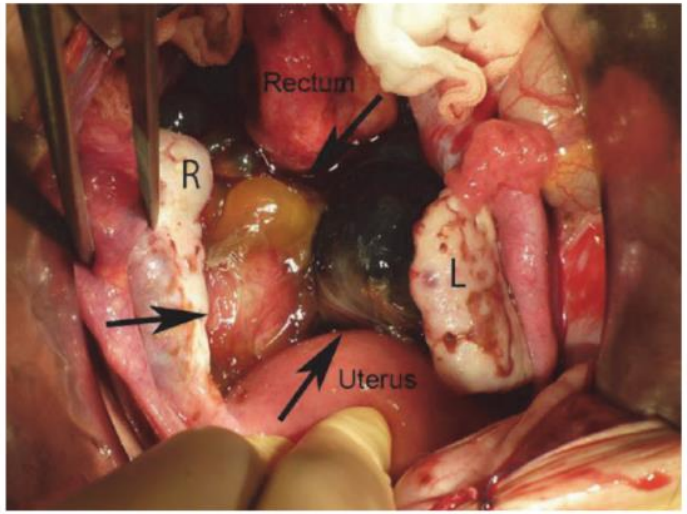
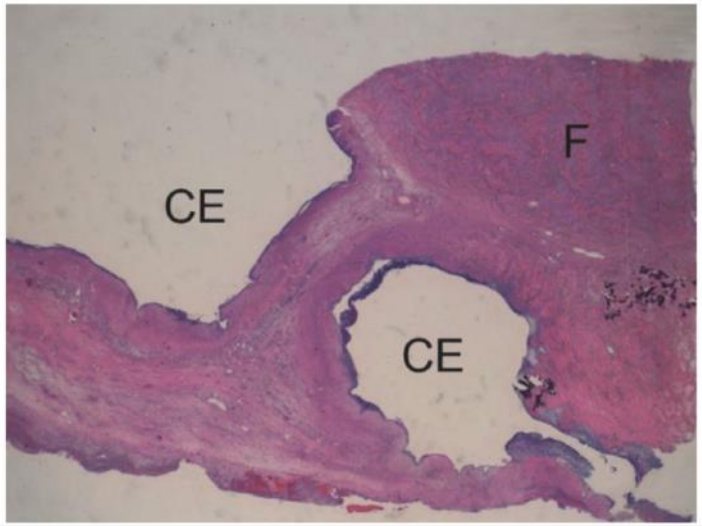
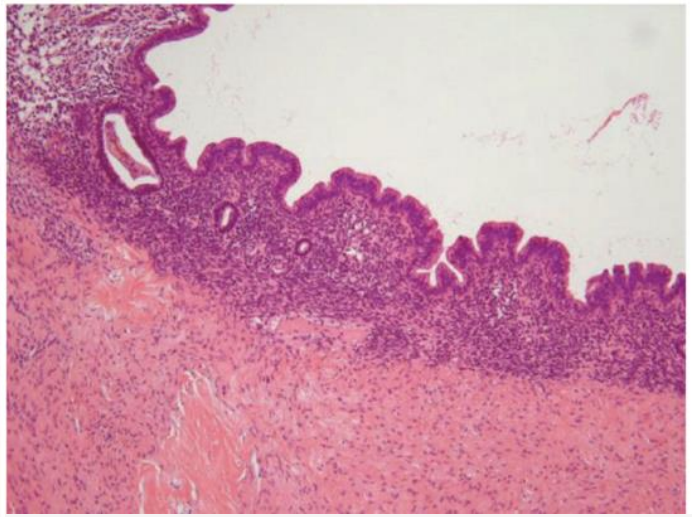


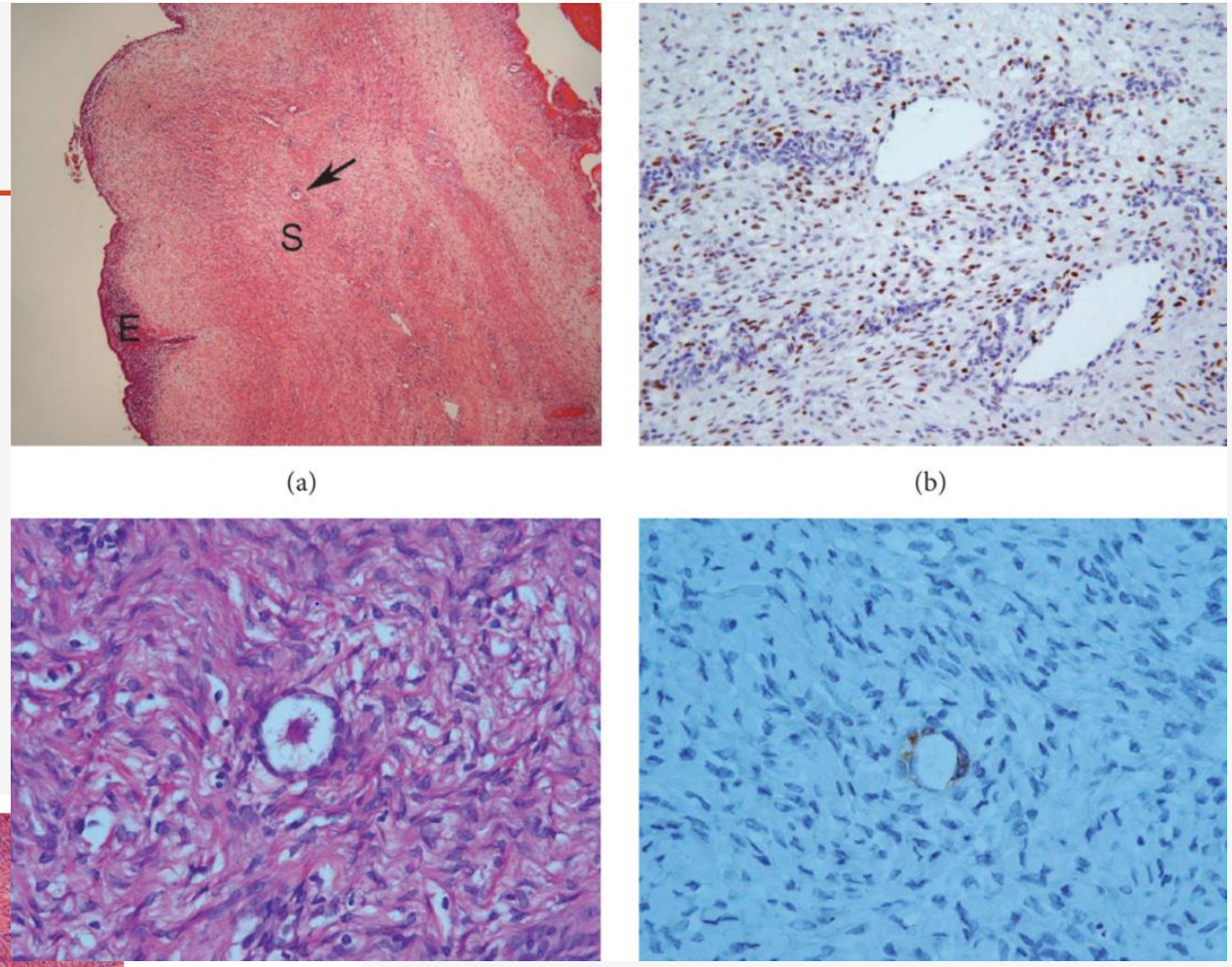
FIGURE 2: View of the rectovaginal pouch during the operation. The cystic and solid mass, indicated by arrows, is present in the



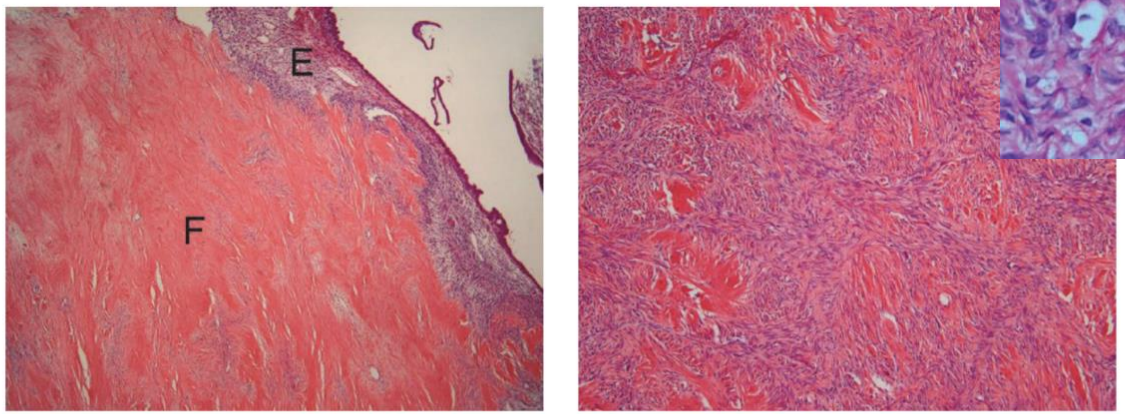


Supernumerary ovary

- OGISHIMA D, SAKAGUCHI A, KODAMA H, et al. Cystic Endometrioma with Coexisting Fibroma Originating in a Supernumerary Ovary in the Rectovaginal Pouch. Case Rep Obstet Gynecol 2017;2017:7239018



(a) (b)



(a) (b)

FIGURE 7: Histological appearance of the fibroma. (a) The fibroma (indicated by F) is present adjacent to endometrial tissue (indicated by E) of cystic endometriosis. HE stain. (b) High-power of the fibroma. Note the increase of the admixture of fibroblasts and collagen fibers. HE

Supernumerary ovary: complete since 2000

- GUPTA R, VERMA S, BANSAL K, JAIN V, SENGAR M, MOHTA A. Mature Teratoma in a Supernumerary Ovary in a Child: Report of the First Case. J Pediatr Adolesc Gynecol 2016;29:e5-7.
- NOMELINI RS, OLIVEIRA LJ, JAMMAL MP, ADAD SJ, MURTA EF. Serous papillary cystadenocarcinoma in supernumerary ovary. J Obstet Gynaecol 2013;33:324.
- BAE HS, RYU MJ, KIM IS, KIM SH, SONG JY. Cancer of the supernumerary ovary in Mayer-Rokitansty-Kuster-Hauser Syndrome: A case report. Oncol Lett 2013;5:598-600.
- ABEDALTHAGAFI M, JACKSON PG, OZDEMIRLI M. Primary retroperitoneal mucinous cystadenoma. Saudi Med J 2009;30:146-9.
- ZHIGANG Z, WENLU S. An intrarenal supernumerary ovary concurrent with a completely duplicated pelvis and ureter. International urogynecology journal and pelvic floor dysfunction 2007;18:1243-6.
- IMIR G, ARICI S, CETIN M, KIVANC F. Supernumerary ovary on sigmoid colon resembling an endometriotic lesion. J Obstet Gynaecol Res 2006;32:613-4.
- HARTIGAN K, PECHA B, RAO G. Intrarenal supernumerary ovary excised with partial nephrectomy. Urology 2006;67:424.e11-24.e12.
- SONNTAG B, LELLE RJ, STEINHARD J, BRINKMANN OA, HUNGERMANN D, KIESEL L. Retroperitoneal mucinous adenocarcinoma occuring during pregnancy in a supernumerary ovary. J Obstet Gynaecol 2005;25:515-6.
- REDMAN R, WILKINSON EJ, MASSOLL NA. Uterine-like mass with features of an extrauterine adenomyoma presenting 22 years after total abdominal hysterectomy-bilateral salpingo-oophorectomy: a case report and review of the literature. Arch Pathol Lab Med 2005;129:1041-3.
- LITOS MG, FURARA S, CHIN K. Supernumerary ovary: A case report and literature review. J Obstet Gynaecol 2003;23:325-7.
- VENDELAND LL, SHEHADEH L. Incidental finding of an accessory ovary in a 16-year-old at laparoscopy. A case report. J Reprod Med 2000;45:435-8.

Ectopic / accessory /supernumerary ovary

- Assumed to be embryological and functional

- But quid when not functional
  - OMORI M, KONDO T, FUKUSHIMA J, et al. Extraovarian Fibroma With Minor Sex Cord Elements: A Case Report and Literature Review. Int J Surg Pathol 2017;25:472-76.

  - This patient 66 year postmenopausal
  - 17 cases 22-78 year;
  - ½ oestrogen secretion + risk of adenocarcinoma

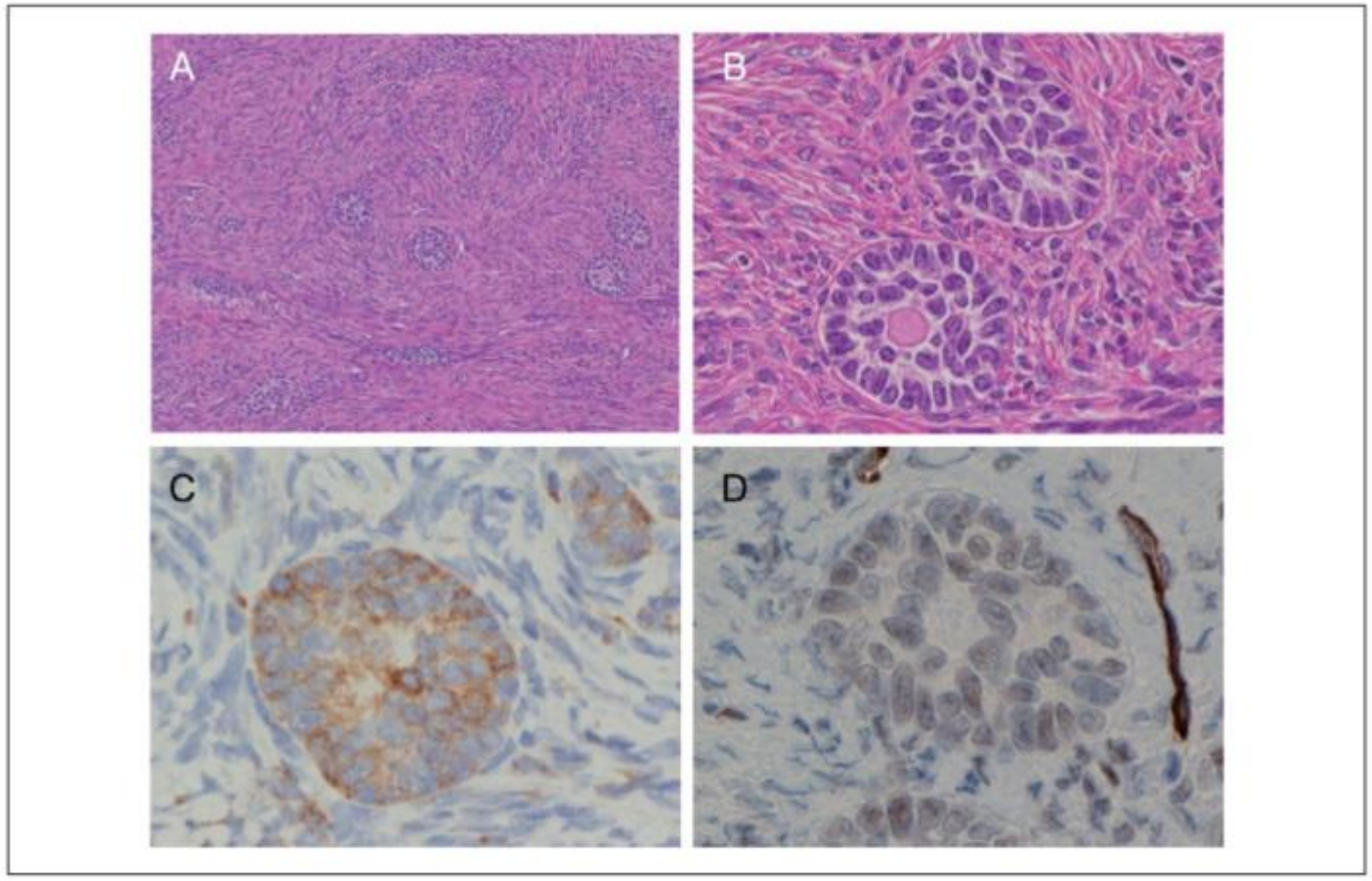
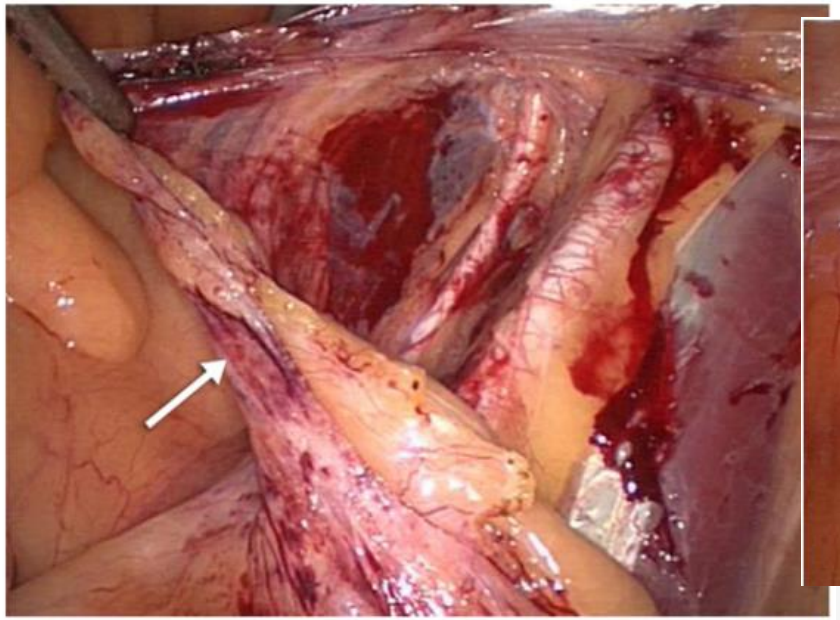
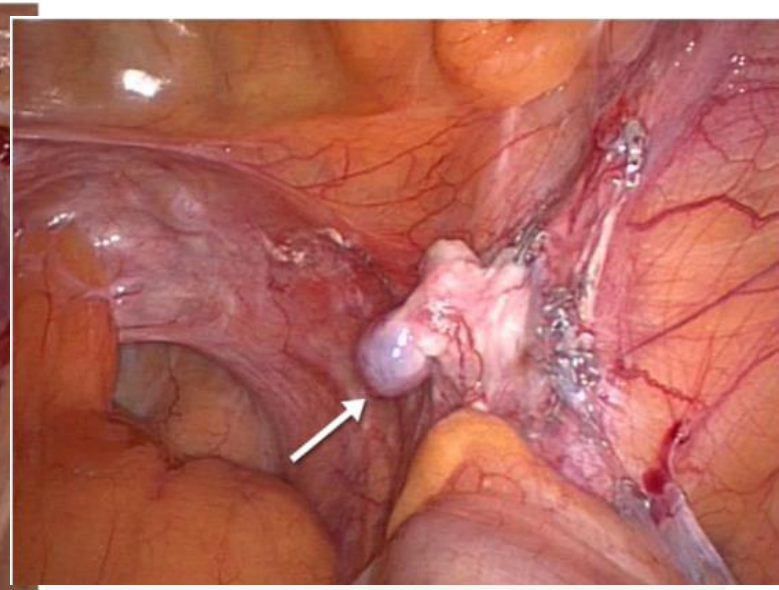


Figure 2. Histological findings of the tumor located in the left broad ligament show 2 types of small cell nests surrounded by abundant fibrous tissue. One nest is an aggregate resembling the Call-Exner bodies of granulosa cell tumors containing eosinophilic amorphous material in the center, and the other nest is a sheet-like aggregate of undifferentiated sex cord–type cells (A, hematoxylin and eosin [H&E], ×10). Granulosa cell–type elements display oval to round nuclei, eosinophilic cytoplasm, small nucleoli and occasional longitudinal nuclear grooves (B, H&E, ×40) and are immunopositive for inhibin (C, ×40) and WT1 (D, ×40).

Tissue remaining after incomplete ovariectomy

- KHO RM, ABRAO MS. Ovarian remnant syndrome: etiology, diagnosis, treatment and impact of endometriosis. Curr Opin Obstet Gynecol 2012;24:210-4.
- Associated with Endometriosis & difficult surgery
- Reimplantation of ov tissue
  - Wall
  - pelvis





Kho. Ovarian remnant syndrome. Fertil Steril 2007.

Table 1. ORS studies since 2006

Study	*N* (number of ORS patients)	Indication for primary oophorectomy	Pathology	Initial presentation	ORS surgery
Mahdavi *et al.*, 2007 [3]	3	Endometriosis – 1; pain – 1	Ovarian serous cystadenoma – 3	Pain – 2; mass – 1	Laparoscopy – 3
Donnez *et al.*, 2007 [5]	1	Endometriosis	Ovarian adenocarcinoma	Pain	Laparoscopy
Kho *et al.*, 2007 [4]	20	Endometriosis – 8; mass – 6	18 – benign; 2 – malignant (mucinous cystadenocarcinoma, endometrioid adenocarcinoma)	Pain – 18; mass – 2	Laparotomy – 1; laparoscopy – 14; robotics – 5
Chao, 2008 [6]	1	Endometriosis	Benign ectopic ovarian tissue, endometriosis	Pain	Laparotomy
Fat *et al.*, 2009 [7]	7	Ovarian cyst – 6; unspecified – 1	Benign – 7	Pain – 7	Laparotomy – 3; laparoscopy – 4
Arden and Lee, 2011 [8▪]	30	Pain or endometriosis – 16; ovarian cysts – 7	All benign	Pain – 29; mass – 1	Laparotomy – 1; laparoscopy – 29

Tissue remaining in infundibulo pelvic ligament after ovariectomy

- FENNIMORE IA, SIMON NL, BILLS G, DRYFHOUT VL, SCHNIEDERJAN AM. Extension of ovarian tissue into the infundibulopelvic ligament beyond visual margins. Gynecol Oncol 2009;114:61-3.
  - In 14 %
  - From 0,2-1,4 (3,5)cm
  - Ovarian remnant

    in 6,5-18%

    > vaginal ovx

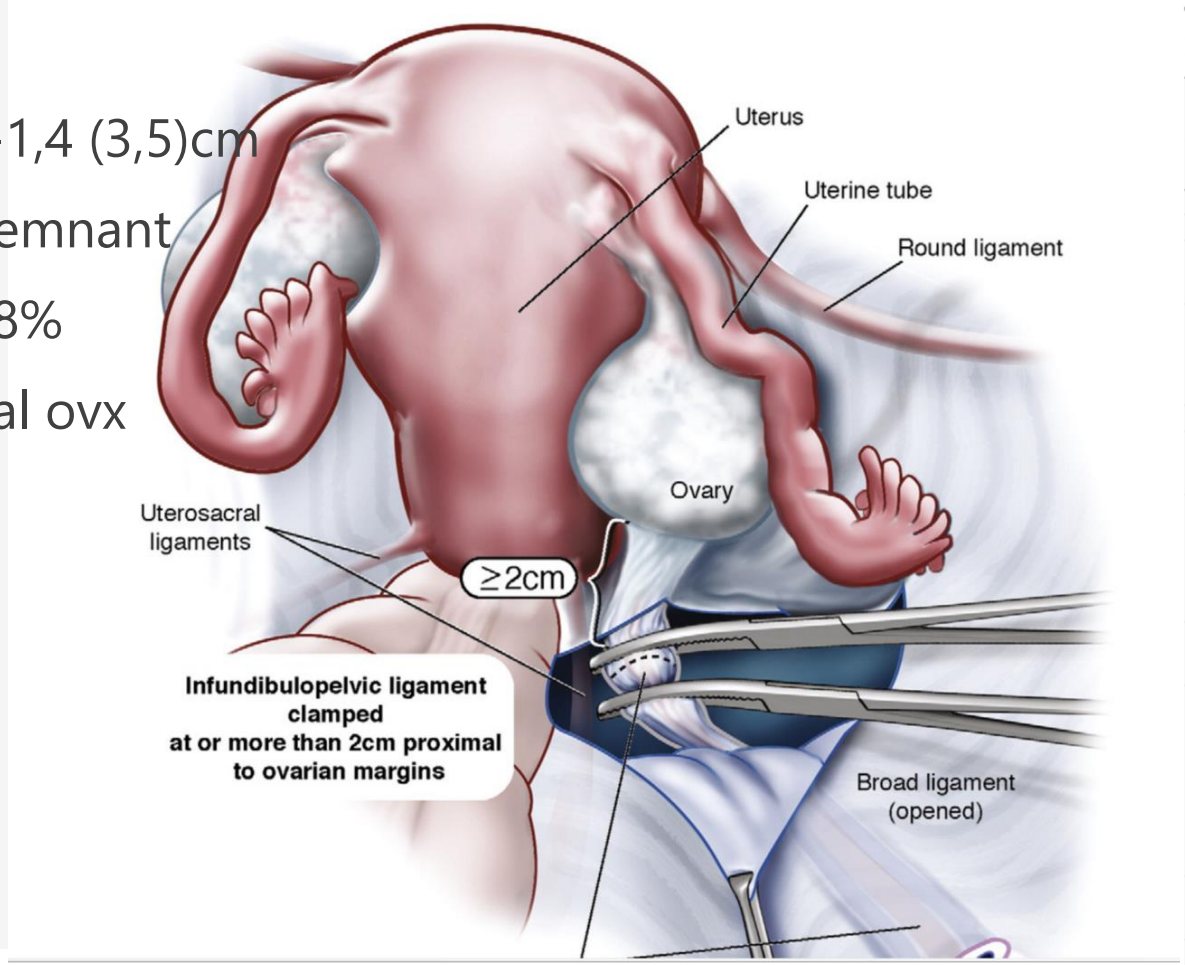


Table 1
Infundibulopelvic (IP) ligament measures and extension of the ovarian tissue.

Menopausal status	Ovary[a]	Operative measure of IP (cm)	Fresh specimen measure of IP (cm)	Extension of ovarian tissue into IP (cm)	Final pathology (ovaries)
Premenopausal					
#1	R IP	4.0	3.0	0.2	Normal tissue
	L IP	4.5	3.0	0.0	Normal tissue
#2	R IP	3.5	2.5	0.0	Endometriosis
	L IP	2.5	2.0	1.4	Normal tissue
Postmenopausal					
#1	R IP	4.5	3.5	0.8	Normal tissue
	L IP	3.5	2.5	0.0	Normal tissue
#2	R IP	4.0	2.5	0.0	Papillary serous carcinoma
	L IP	4.0	3.0	0.2	Papillary serous carcinoma
#3	R IP	5.0	4.0	0.0	Normal tissue
	L IP	4.0	3.0	0.2	Normal tissue
#4	R IP	3.3	2.5	0.0	Metastatic adenocarcinoma of endometrium
	L IP	3.0	2.0	0.8	Metastatic adenocarcinoma of endometrium
#5	R IP	5.0	2.0	0.0	Normal tissue
	L IP	3.5	1.6	0.2	Normal tissue
#6	R IP	3.5	2.0	0.4	Fibroma
	L IP	3.5	1.5	0.0	Normal tissue

Diagnosis of Ovarian remnant

- Most diagnoses
  - BSO + cystic mass at ovarian location
  - BSO + estrogen secretion
- Unclear
  - Diagnosis of stroma by pathology ??
  - Presence of follicles ??

Diagnosis of ORS

- VILOS GA, MARKS-ADAMS JL, VILOS AG, ORAIF A, ABU-RAFEA B, CASPER RF. Medical treatment of ureteral obstruction associated with ovarian remnants and/or endometriosis: report of three cases and review of the literature. J Minim Invasive Gynecol 2015;22:462-8.
- Endometriosis & difficult BSO
- Endometriosis + ureteral obstruction + unclear source of estrogens
  - Pragmatic therapy by GNRH + add-back
  - Even not an attempt to find the source of estrogens

Hormones and ORS

- 50% have ‘normal estrogens’
- Not useful for diagnosis

- However HRT estrogens are often not measurable in Radio-immuno-assay

“ovarian mass” concept

In rats

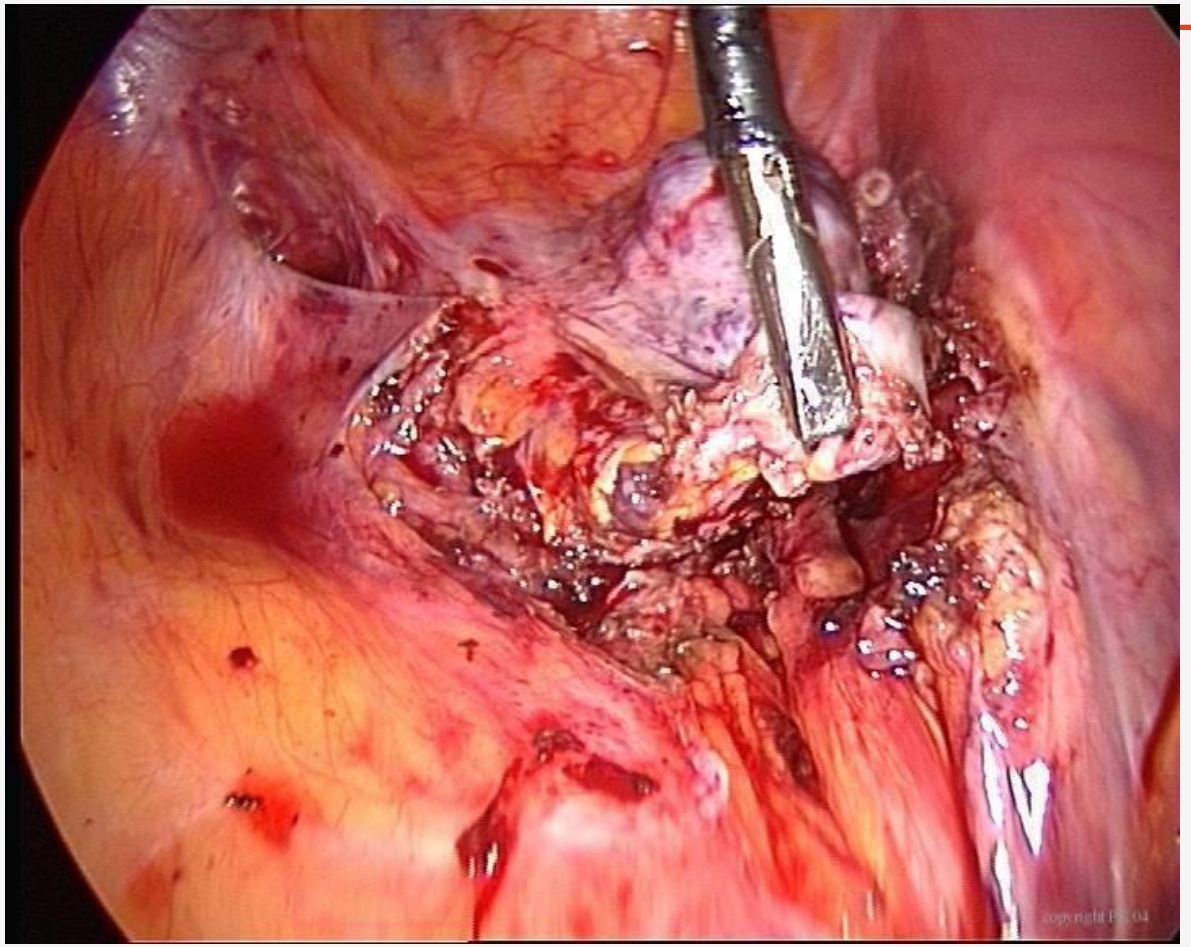
- + extra ovary -> remains inactive ovary
- Removal of 1 ovary -> becomes active

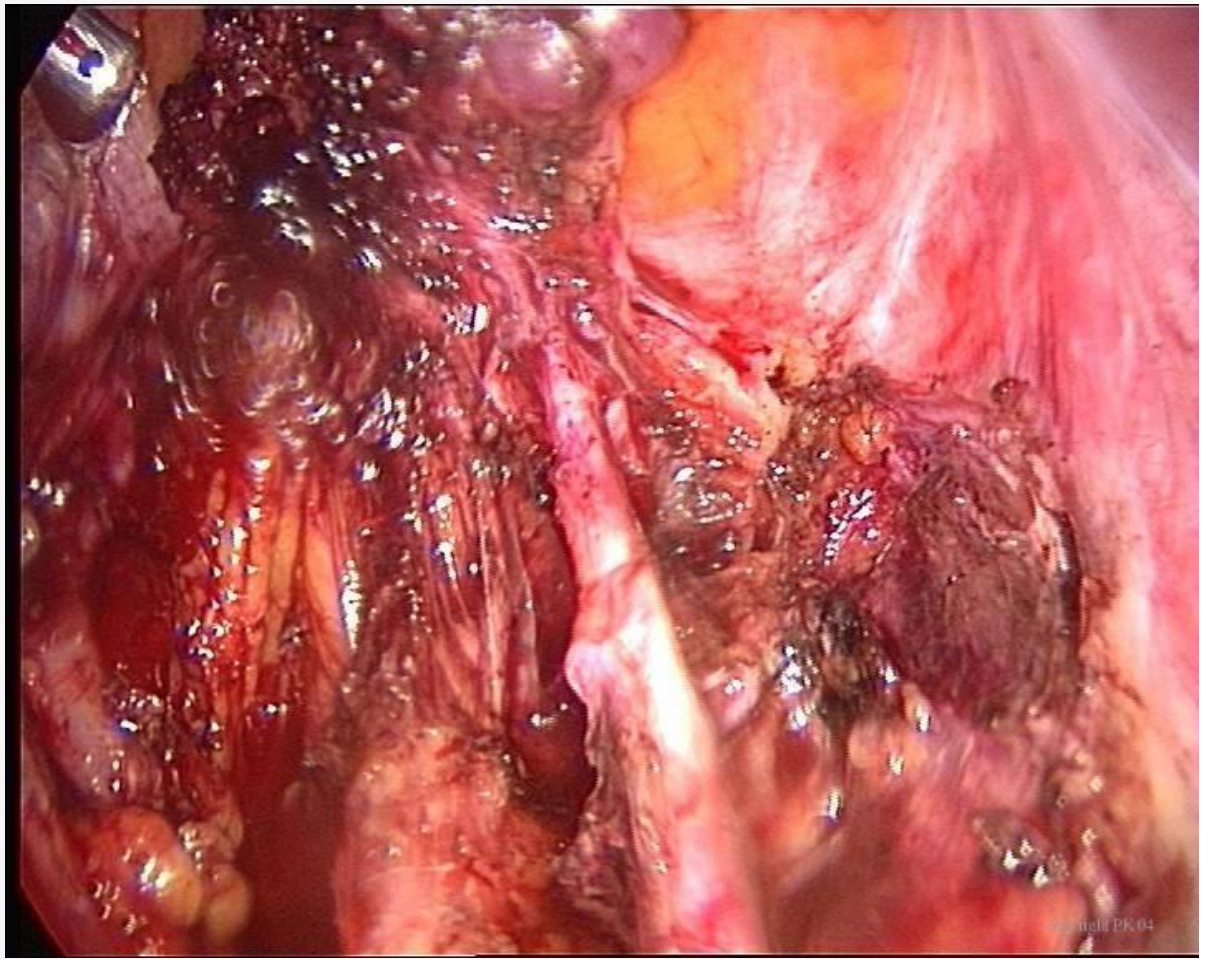
Translated to humans

- Ovarian “remnants” risk to become active after ovariectomy

-

Fibrotic … Ovarian remnant surrounding the ureter





Conclusions: ovarian remnant

- 1/20,000 surnumerary ovaries
- Ovarian remnant
  - Ovarian stromal remnant in 7-18% after ovariectomy
  - More after endometriosis surgery -> more difficult planes of cleavage & more ovarian tissue
- Ovarian remnant 50/50 hormonal active/inactive
- Symptoms : mainly pain
- If only stromal component and inactive : unclear diagnosis and clinically fibrosis
- Always difficult surgery since ureter circularly involved
- Unclear why pain and why around ureter
- MRI + US + surgical observation

Rare cases

At laparoscopy : Inspection : slow and in detail

you only recognise what you know

be a clinician