

**Center for  
minimal access  
Surgery in Gynecology**

**Department of  
Gynaecology and Obstetrics**

**Hospital Sachsenhausen  
Frankfurt**

**Academic Teaching hospital  
University of Frankfurt**



# **Laparoscopic approach to severe endometriosis**

**Philipp-Andreas Hessler**  
Head of Department

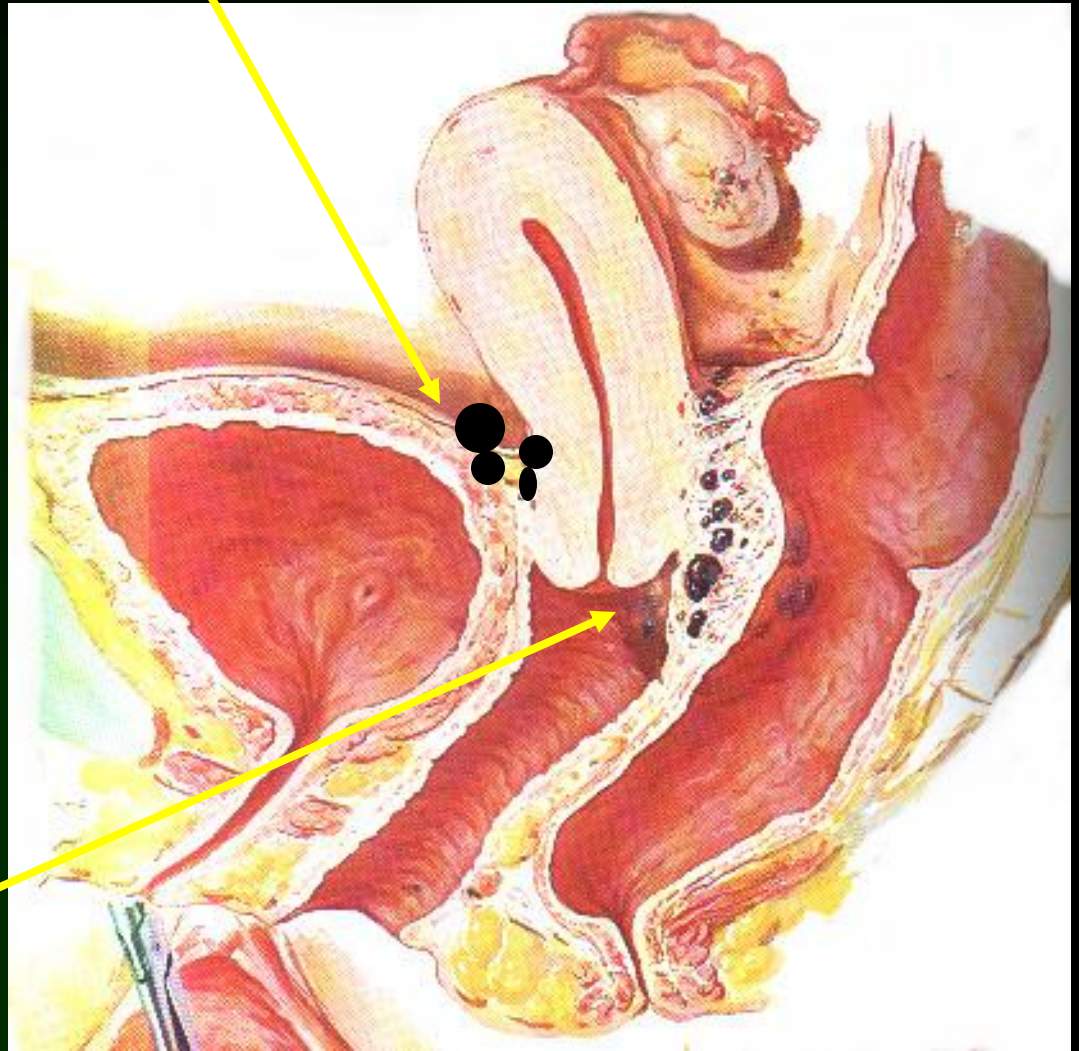
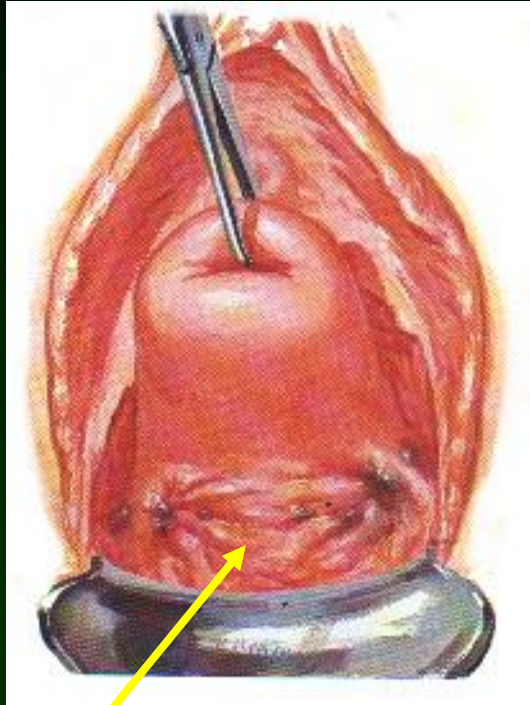
**Laparoscopy Training Course**  
**Harare Zimbabwe 14th - 18th March 2011**



# Severe endometriosis (1)



# Severe endometriosis (1)



# Endometriose – Laparoscopic surgery



# Endometriosis – surgical approach ?



**Laparotomy ?**

**Laparoscopic approach !**





**No symptoms  
no surgery !**



**Laparoscopic surgery  
is not a  
a surgery of compromises  
but  
conventional surgery with a  
minimal (invasiv) access!**





**The greatest complication  
is the wrong  
or the missing indication !**



**It is the result that counts,  
laparoscopic surgery  
has not to be better  
then conventional surgery,  
but also not worse !**





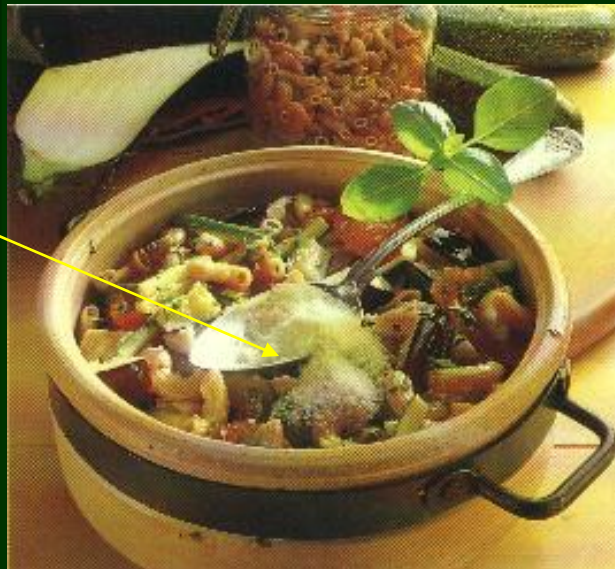
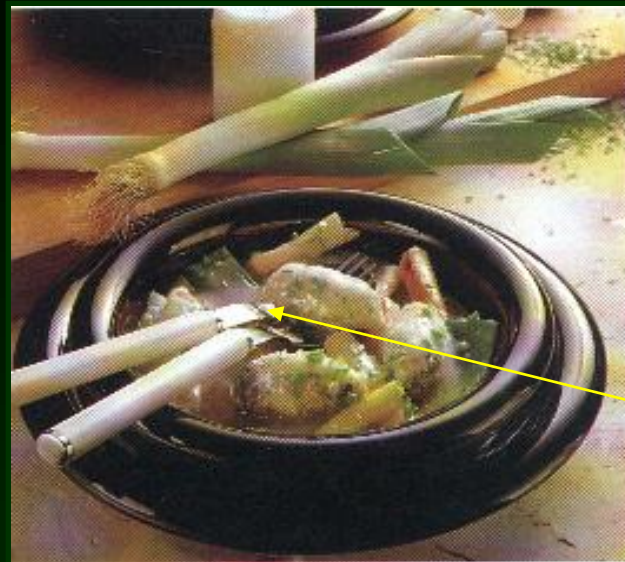
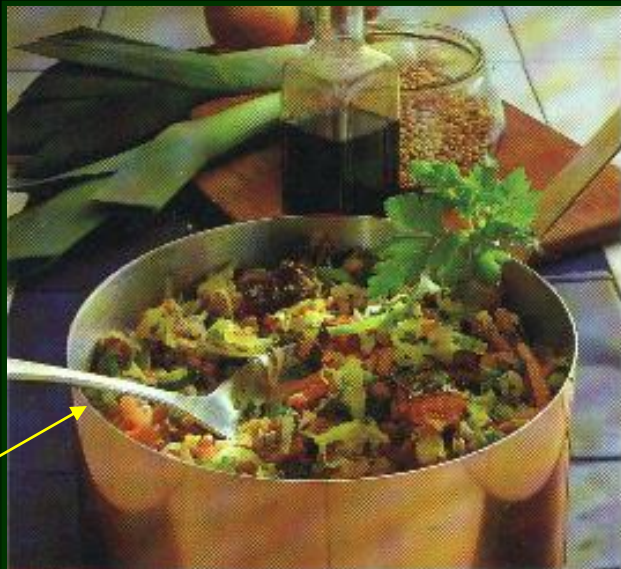
The aim of laparoscopic surgery is not to improve conventional surgery, laparoscopic surgery is only an alternative



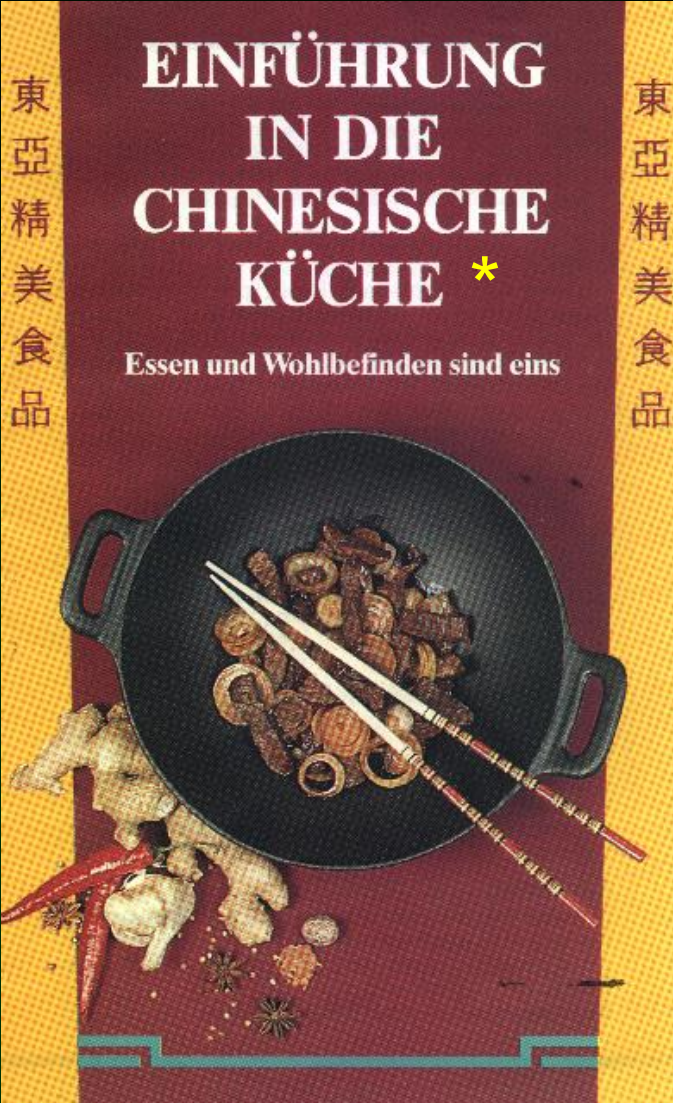
Minimal invasive surgery is definitely not minimal surgery !



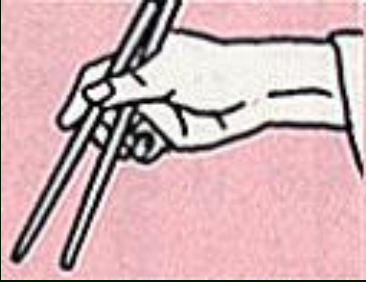
# Endometriose – Laparoscopic approach (1)



# Endometriose – Laparoscopic approach (2)



\* Chinese cooking and eating



trial ...



... and error !



... become an expert !



# Financial aspects – the different operative settings



**abdominal hysterectomy**



**vaginal hysterectomy**

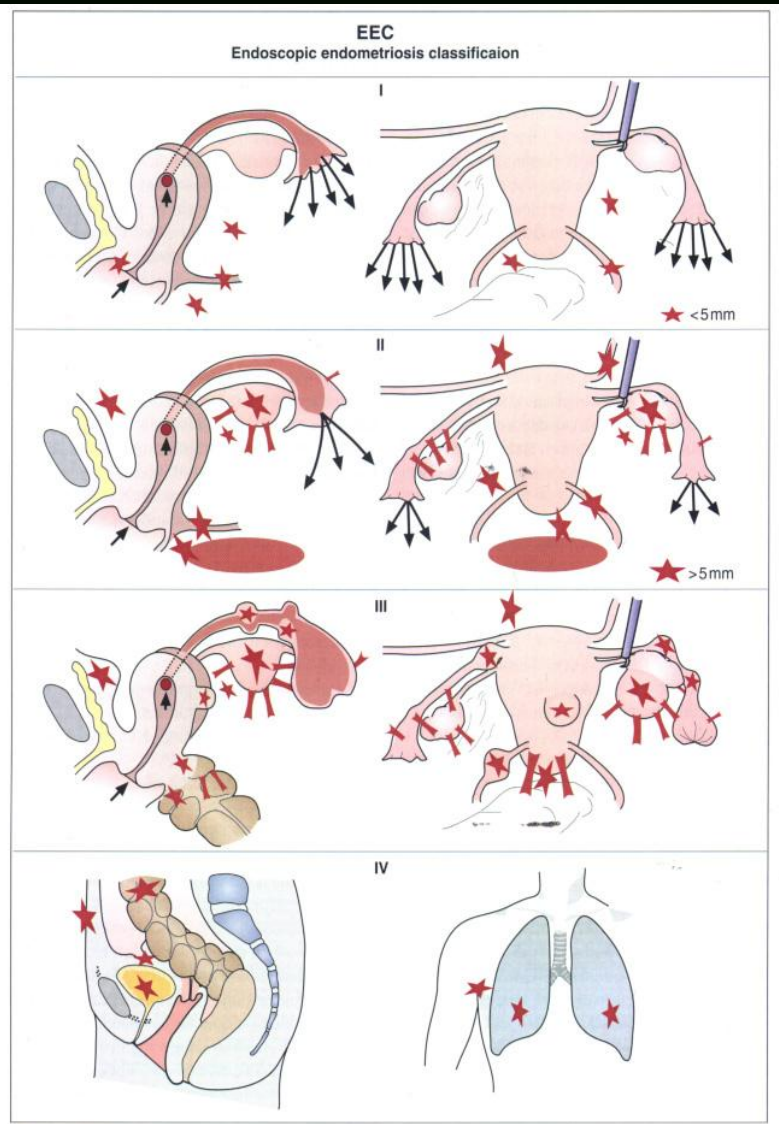


**laparoscopic hysterectomy**



# Endometriosis classification

# Endoscopic Endometriosis Classification (EEC)



I°

Lesion < 5 mm  
Douglas-Cavity,  
sacrouterine ligaments,  
bladder or retrouterine  
(fresh white or red, brown)

II°

Lesion > 5 mm  
Douglas-Cavity,  
Infiltration sacrouterine ligg.,  
ovarian cysts,  
adhesions fallopian tubes

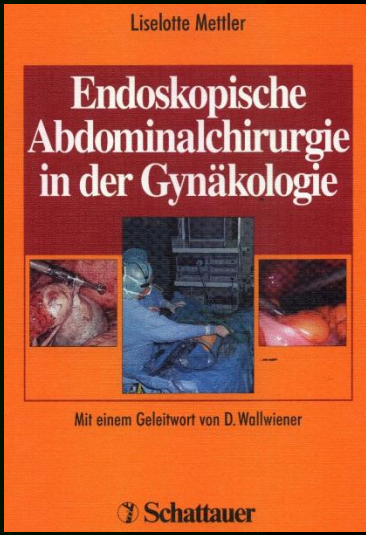
III°

Adenomyosis uteri,  
endosalpingitis nodosa,  
endometriomas ovaries,  
adnexal adhesions,  
rectovaginal septum,  
bowel and vagina

IV°

Other locations:  
bowel (sigma),  
abdominal wall,  
in the bladder,  
lungs or elsewhere

Abb. 6-33: Endoskopische Endometrioseklassifizierung (EEC) nach Mettler und Semm 1984. Erläuterungen siehe Text.



# Endometriosis classification

# American Fertility Society 1978 -1985

Peritoneum	Endometriosis		Superficial	< 1 cm	1-3 cm	> 3 cm
			Deep	1 2	2 4	4 6

Ovary	Endometriosis	R	Superficial	< 1 cm	1-3 cm	> 3 cm
			Deep	1 4	2 16	4 20
		L	Superficial	1 4	2 16	4 20
			Deep	4	16	20

Douglas-Cavity	Obliteration		Partial	4
			Complete	40

Ovary	Adhesions	R	Filmy	< 1/3 enclosure	1/3-2/3 enclosure	> 2/3 enclosure
			Dense	1 4	2 8	4 16
		L	Filmy	1 4	2 8	4 16
			Dense	4	8	16

Tube	Adhesions	R	Filmy	1	2	4
			Dense	4*	8*	16
		L	Filmy	1	2	4
			Dense	4*	8*	16

(\*) If the fimbriated end of the fallopian tube is completely enclosed, change the point assignment to 16

<b><u>Stage I</u></b> (minimal) <b>1 - 5</b>	<b><u>Stage III</u></b> (moderate) <b>16 - 40</b>
<b><u>Stage II</u></b> (mild) <b>6 - 15</b>	<b><u>Stage IV</u></b> (severe) <b>&gt; 40</b>



# Endometriosis – (personal) classification I° – IV°



based on the surgical techniques /skill

Very easy

I° staging, chromopertubation  
soagulation of peritoneal endometriosis,  
coagulation of ovarian surface

Easy

II° small ovarian cysts, uterine adenomyoma  
resection of superficial endometrial plaques,  
Adhesiolysis (fallopation tubes, ovaries of bowel)  
coagulation surface of bladder or bowel

Difficult

III°

Large ovarian cysts, adnectomy, hysterectomy,  
resection of superficial endometriosis on bladder,  
bowel or ureter, complicated adhesiolysis

Very difficult

IV°

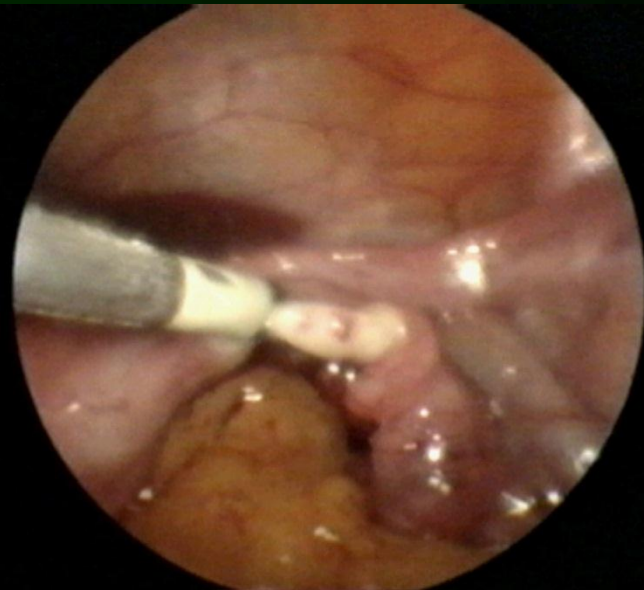
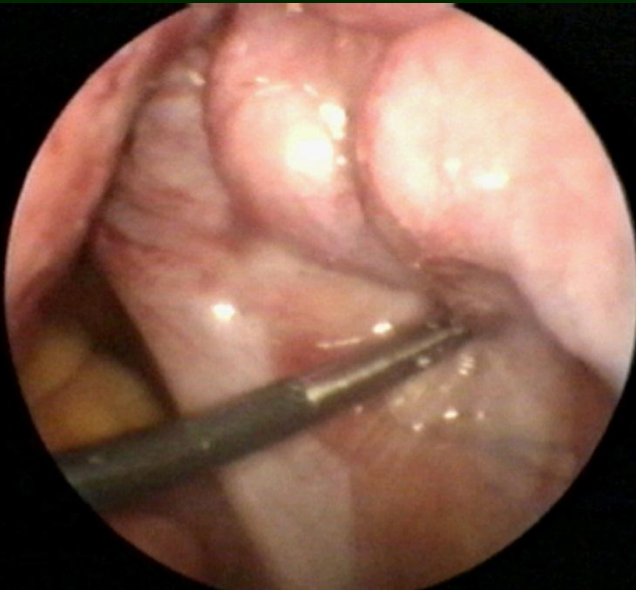
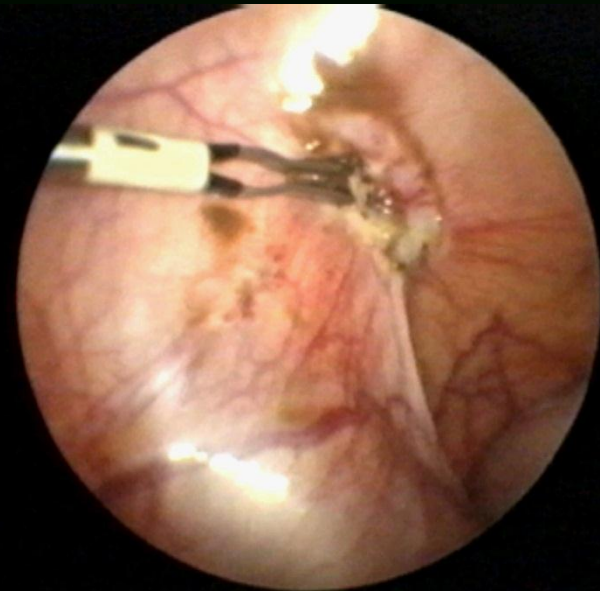
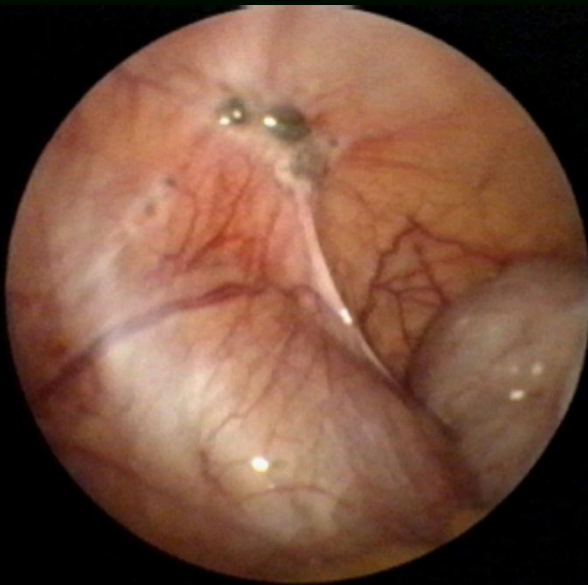
partial/complete resection of the sigma or rectum  
partial resection of infiltrating endometriosis of the  
Bladder, partial resection of the ureter (reimplantation)



# Endometriosis I° – Micro-laparoscopy

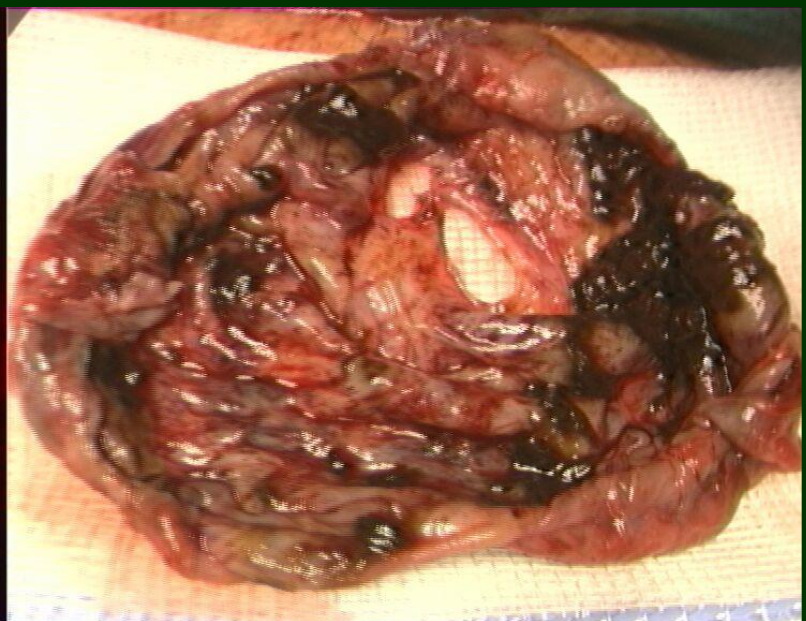
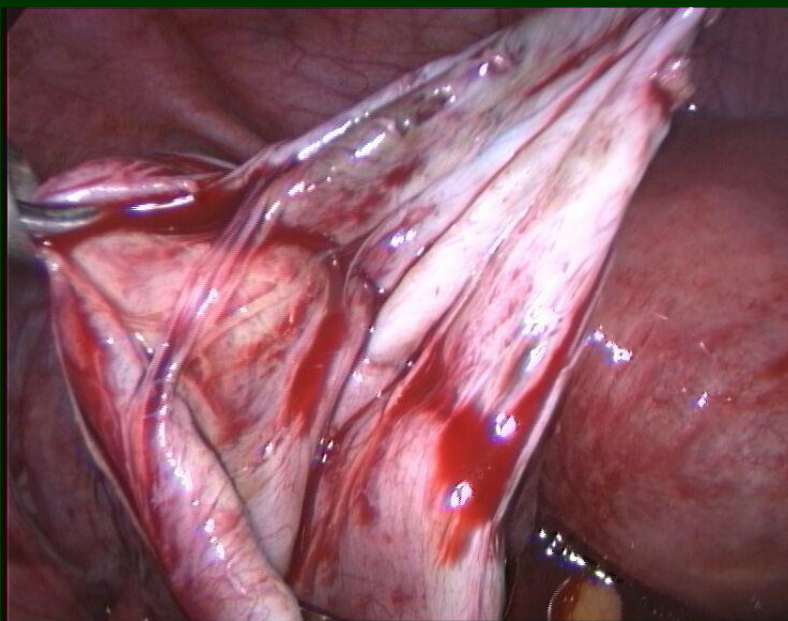
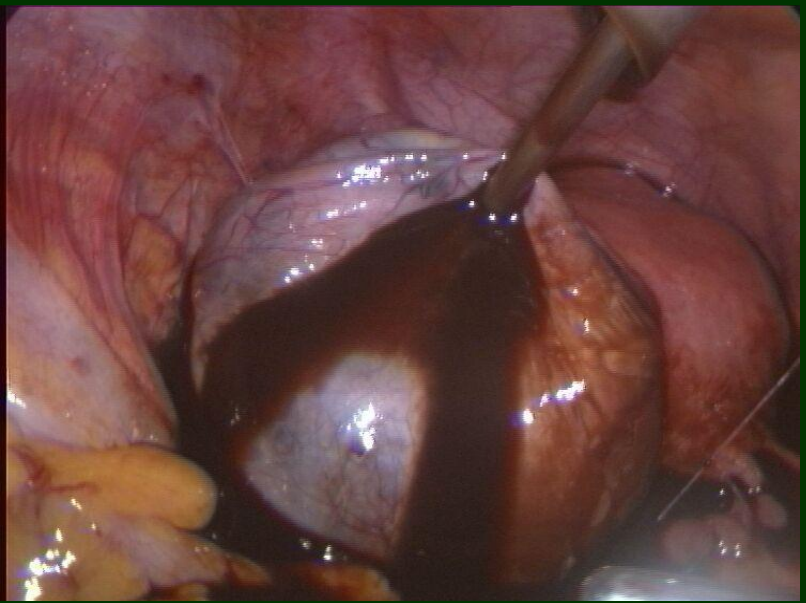
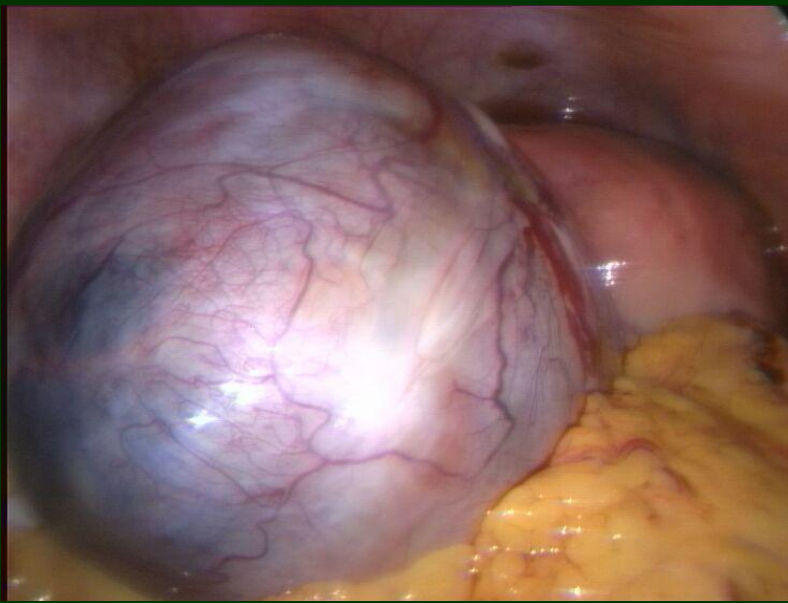


# Endometriosis I° – Micro-laparoscopy / coagulation

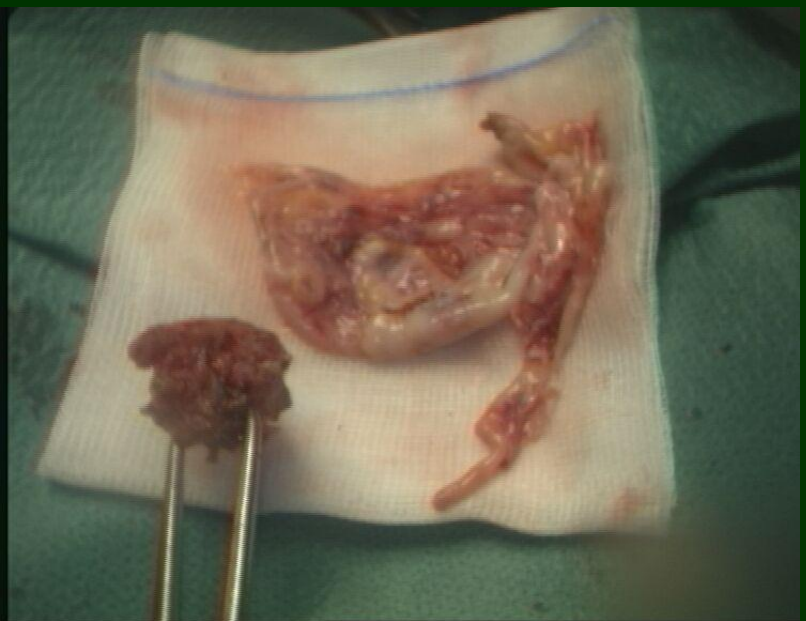
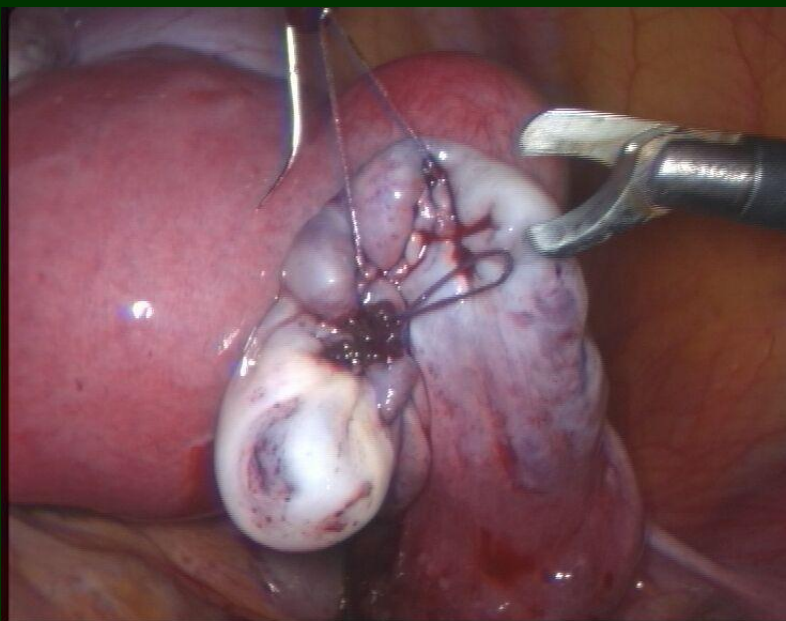
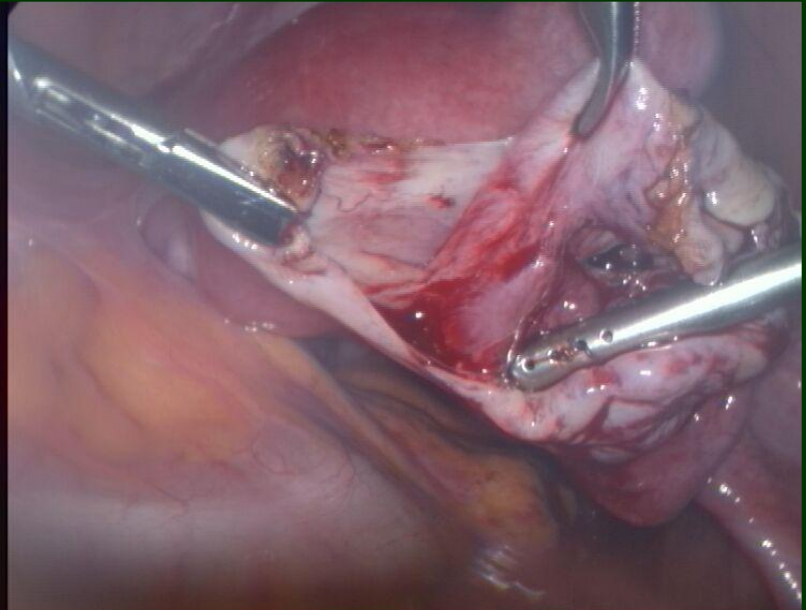




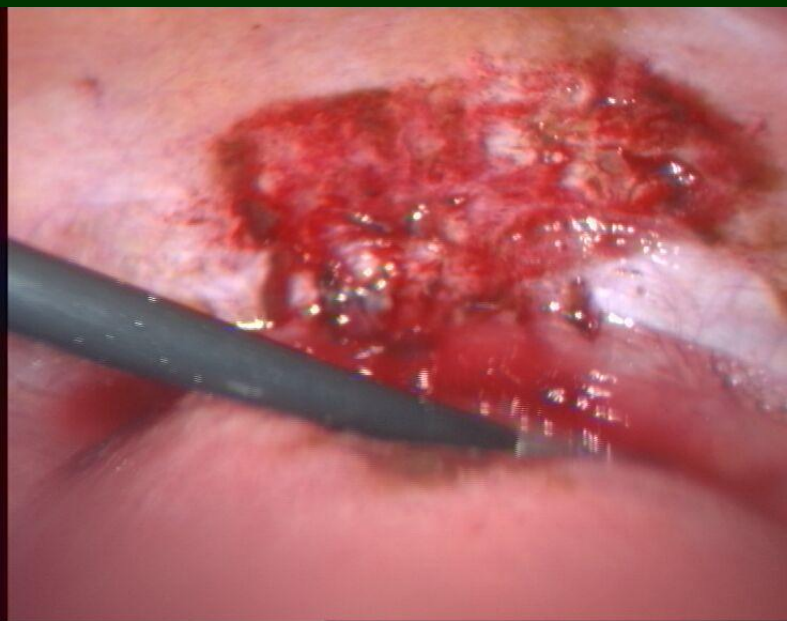
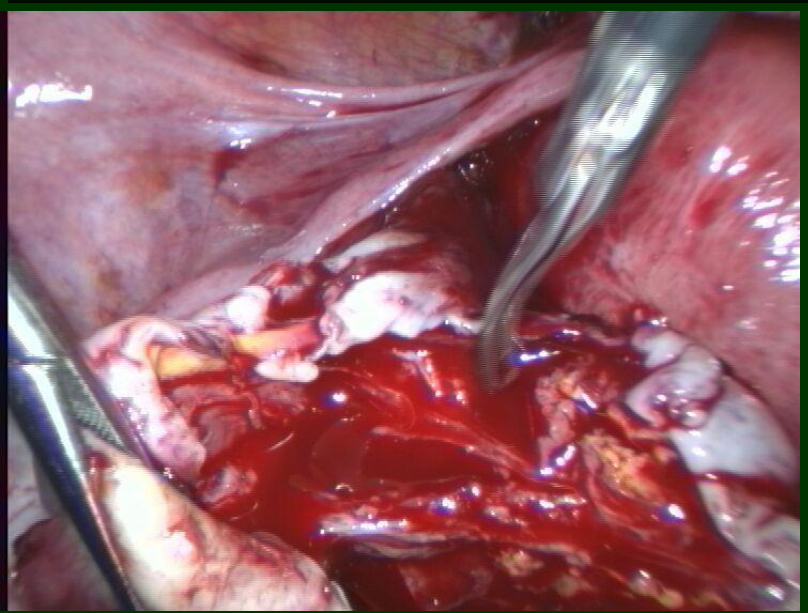
# Endometriosis II° - Ovarian Cyst



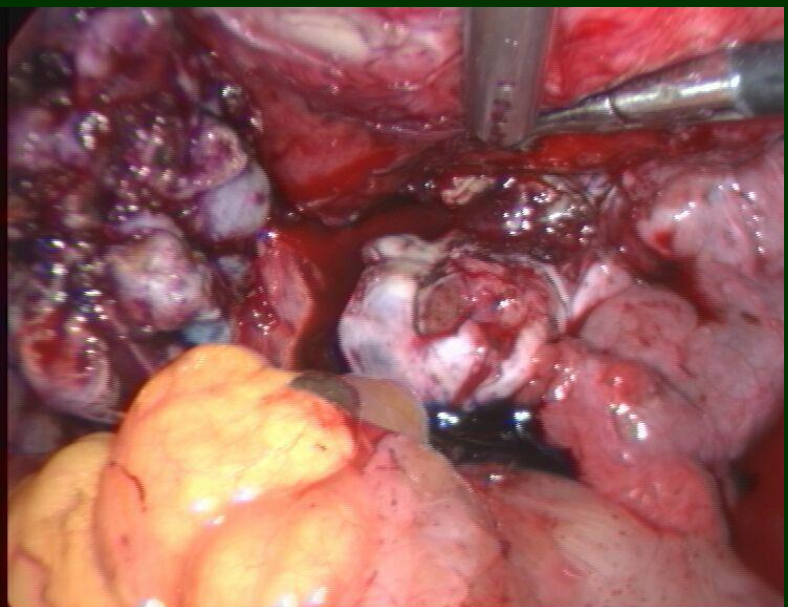
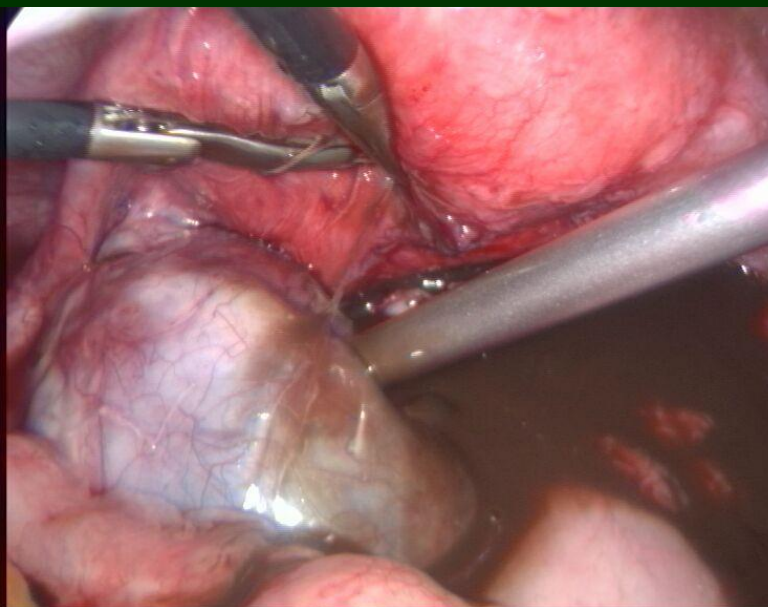
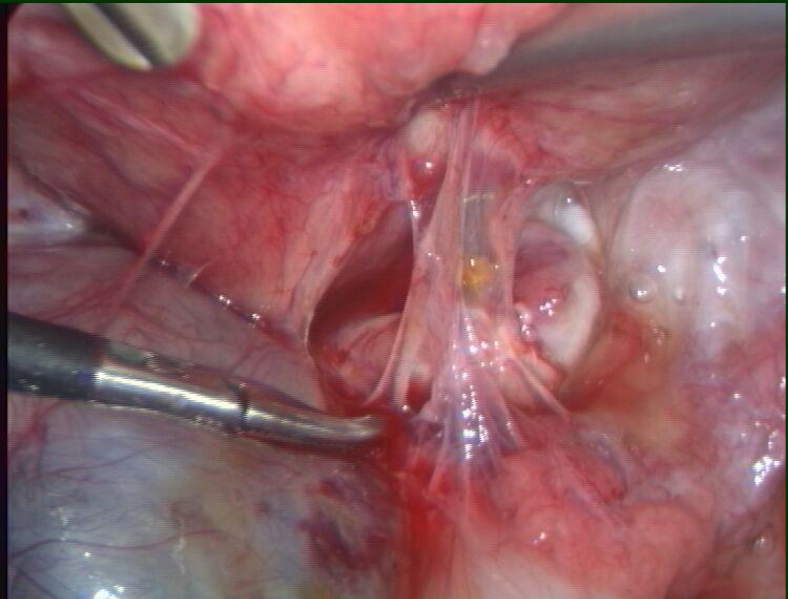
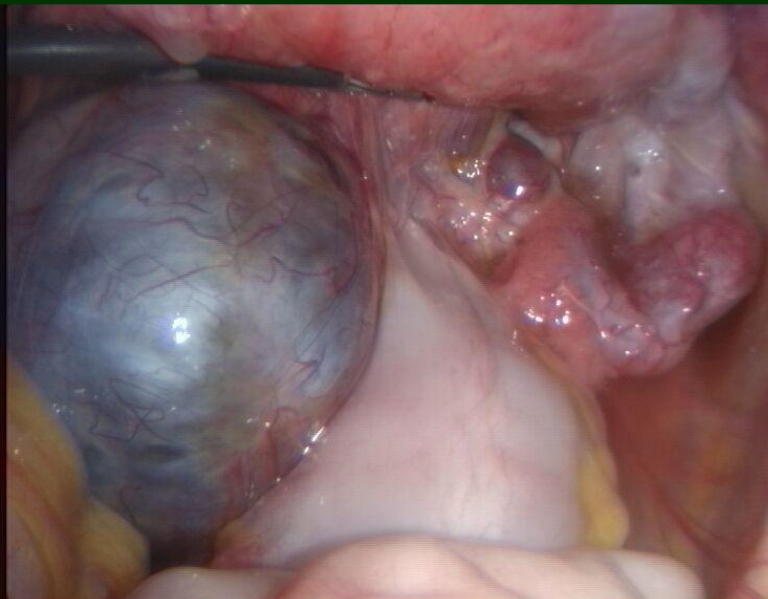
# Endometriosis II° - Ovarian Cyst



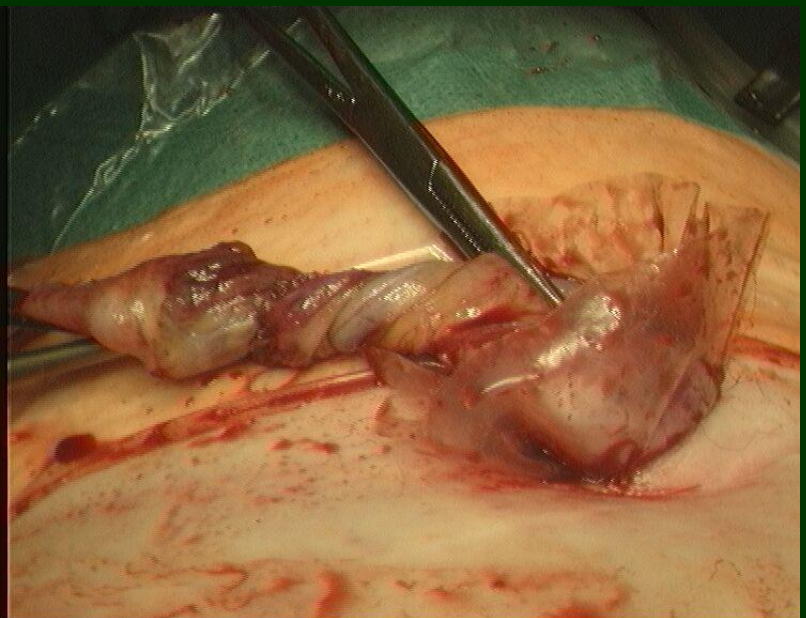
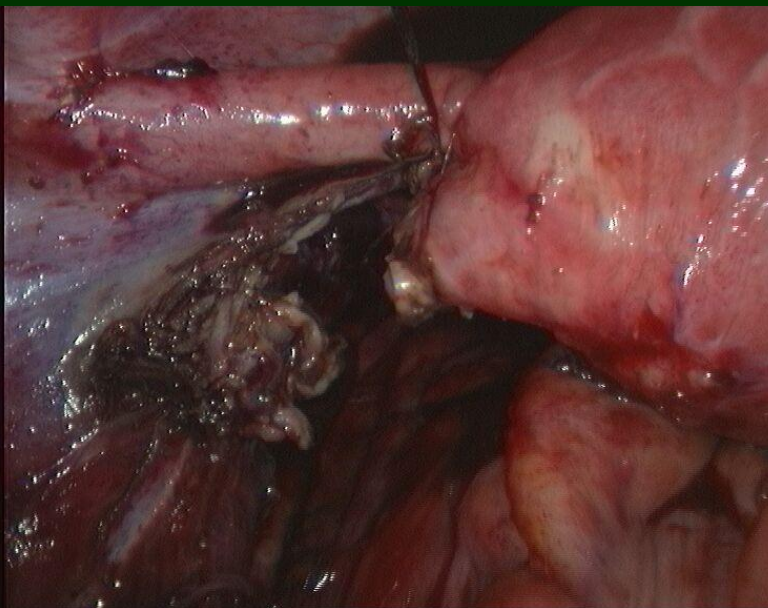
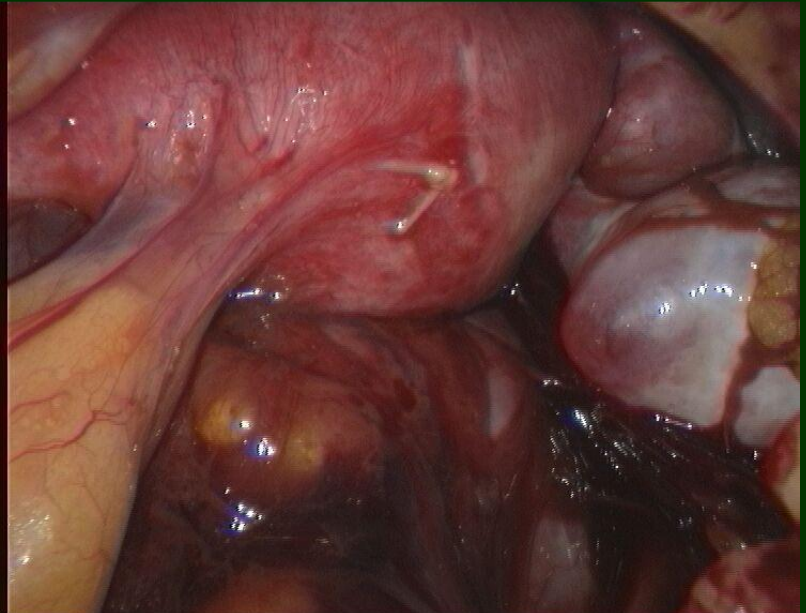
# Endometriosis II° - Ovarian Cyst



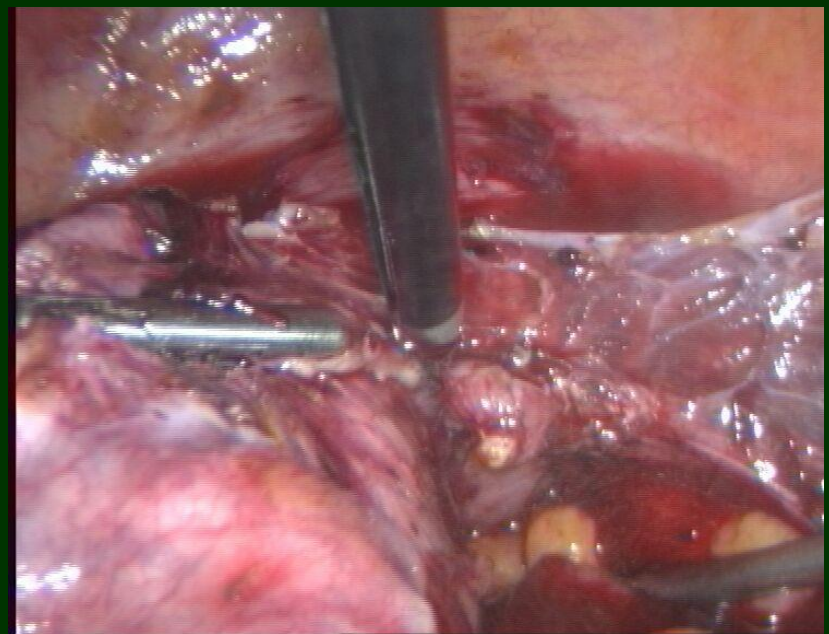
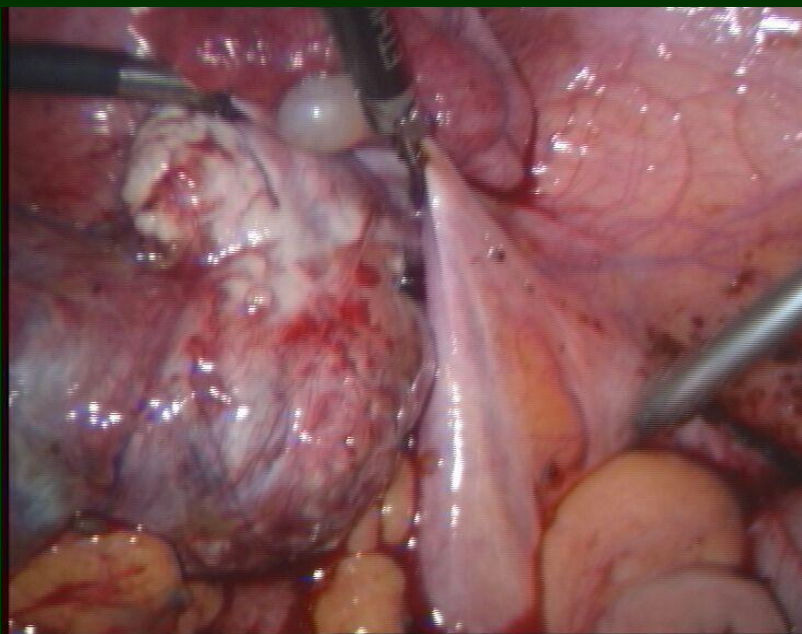
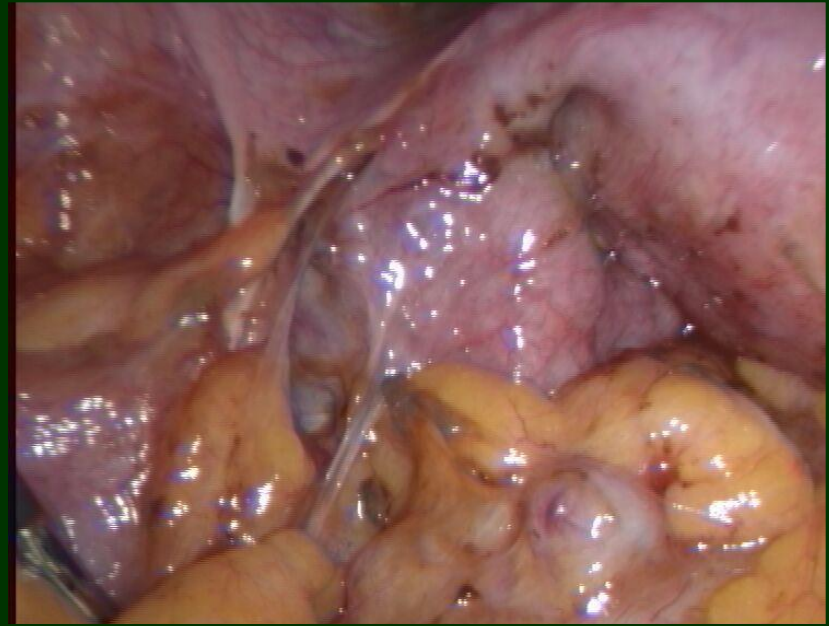
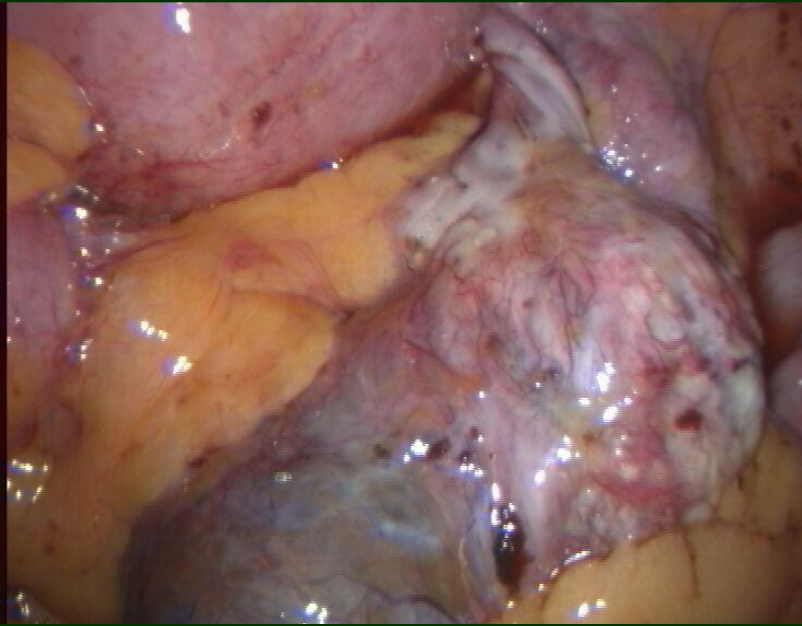
# Endometriosis II° - Bilateral cystectomy + adhesiolysis



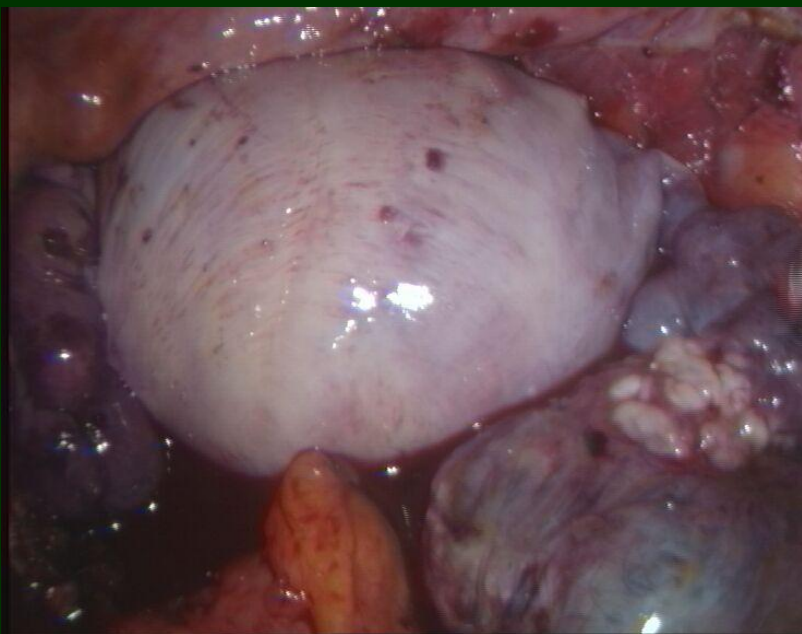
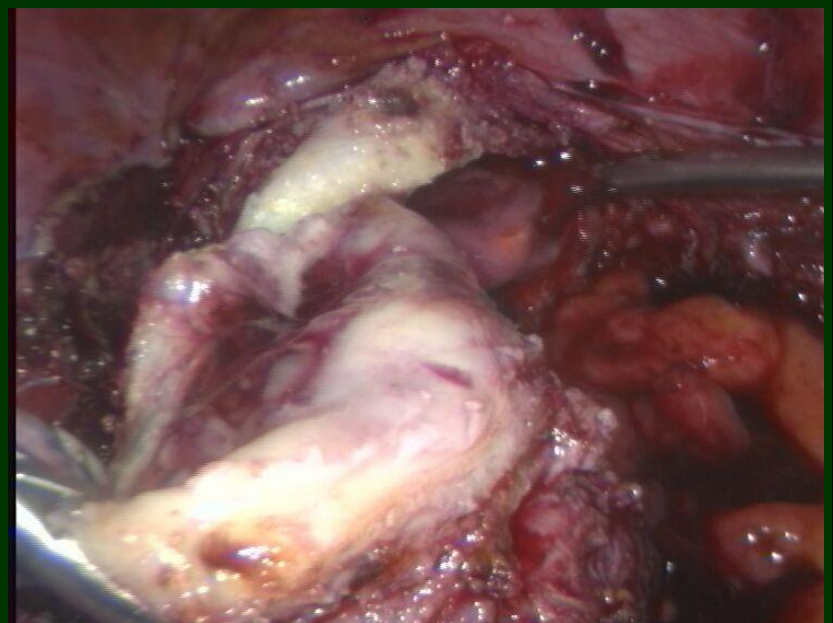
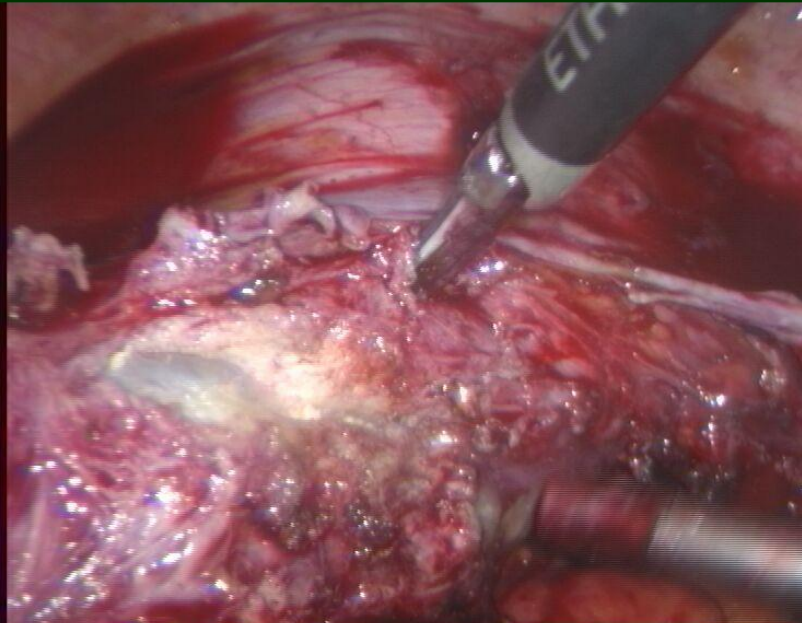
# Endometriosis III° - Adnectomy + appendectomy + adhesions



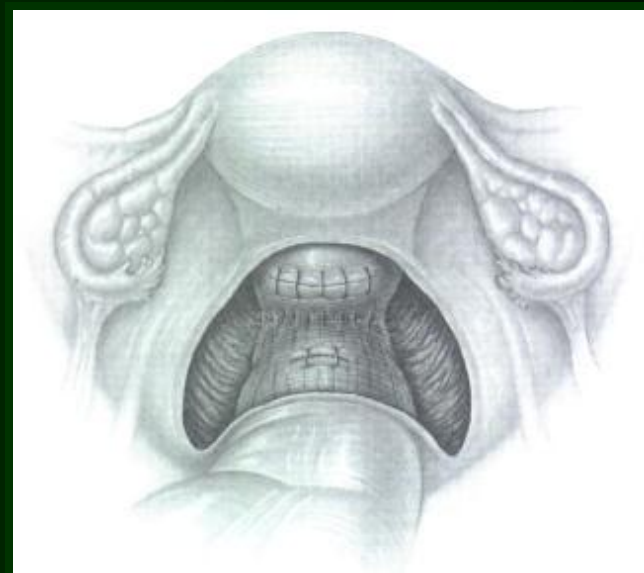
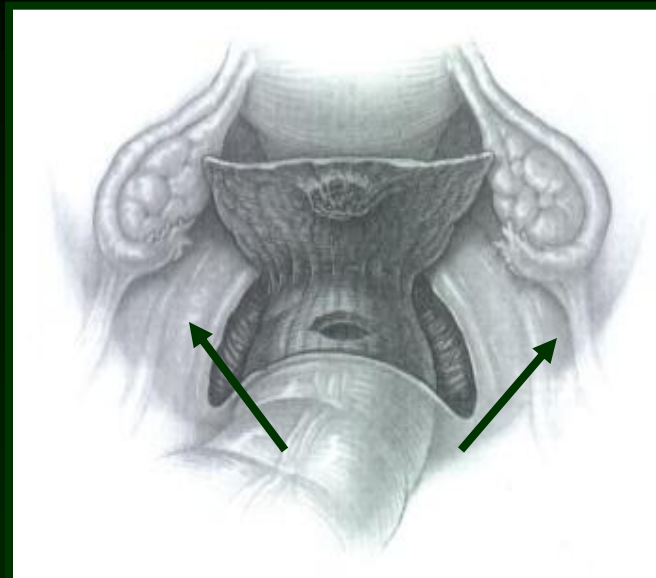
# Endometriosis III° - Bilateral adnectomy + hysterectomy (1)



# Endometriosis III° - Bilateral adnectomy + hysterectomy (2)

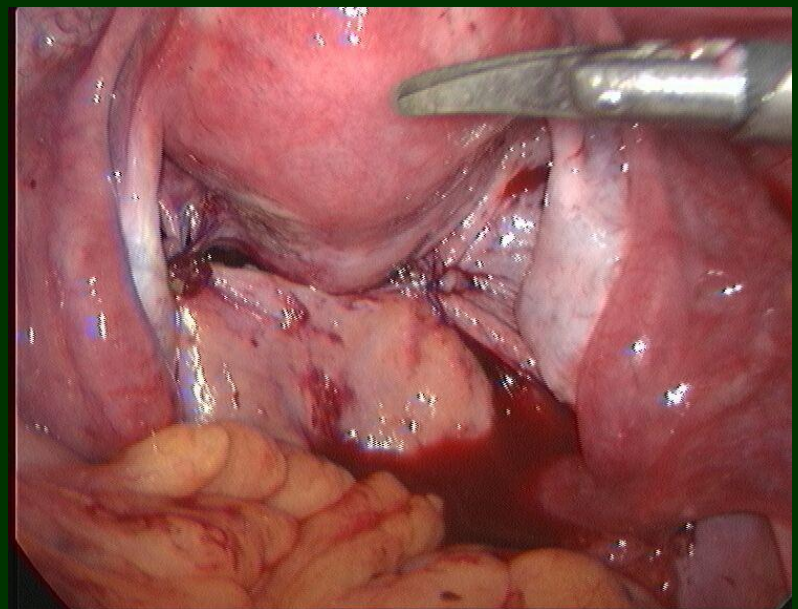
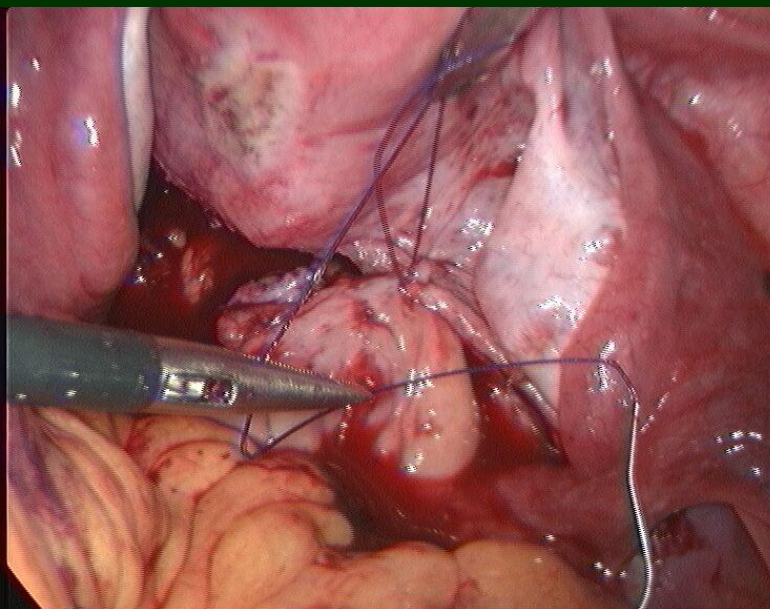
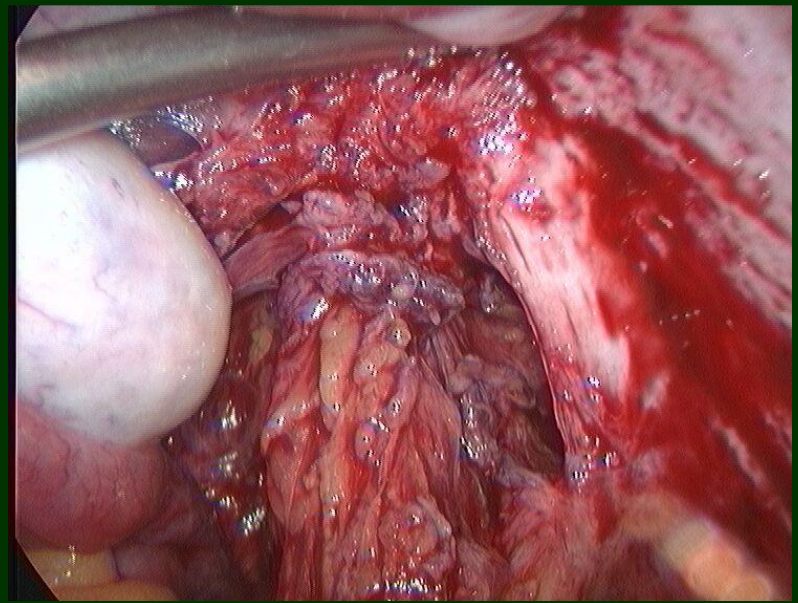
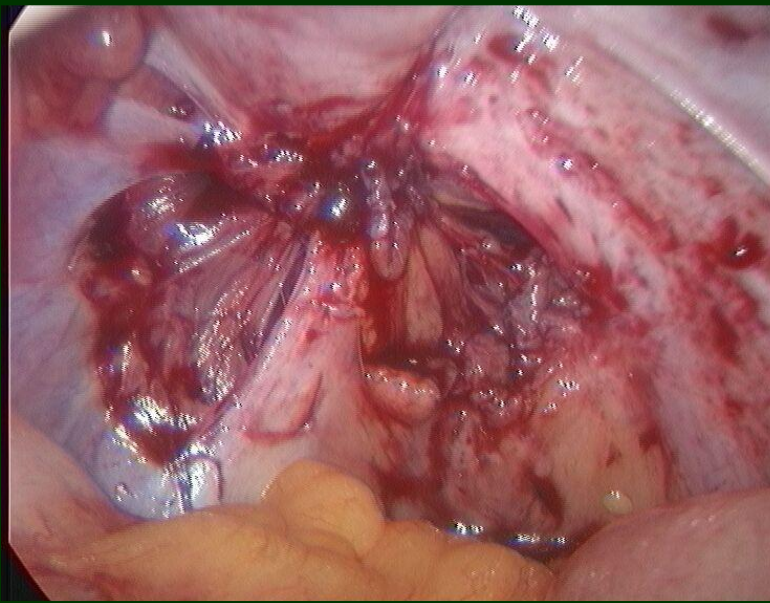


# Endometriosis IV° - resection Douglas cavity (+/- rectum)

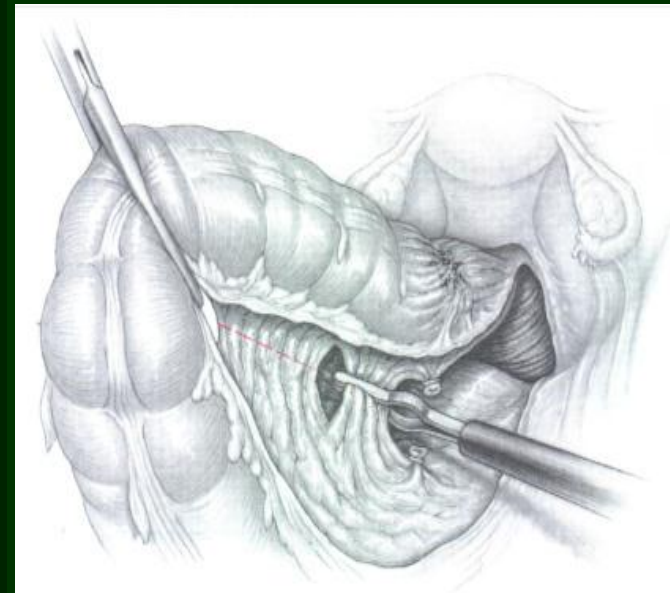
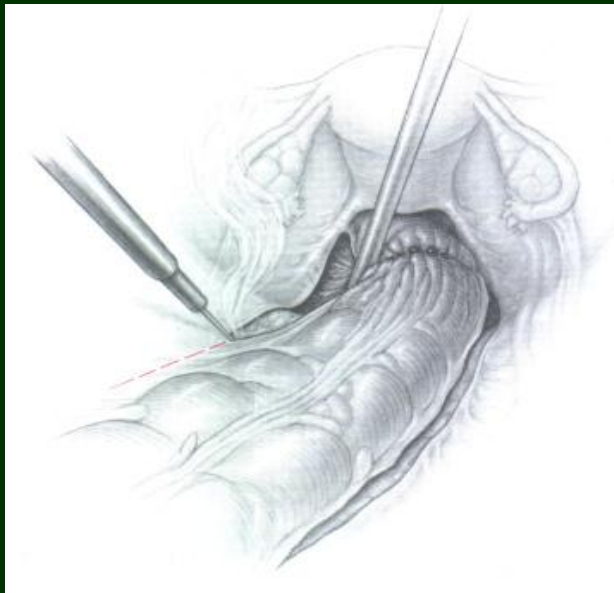
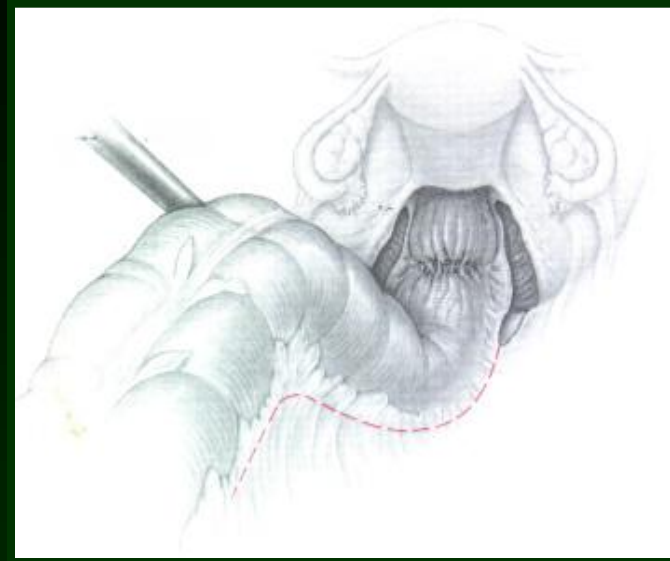
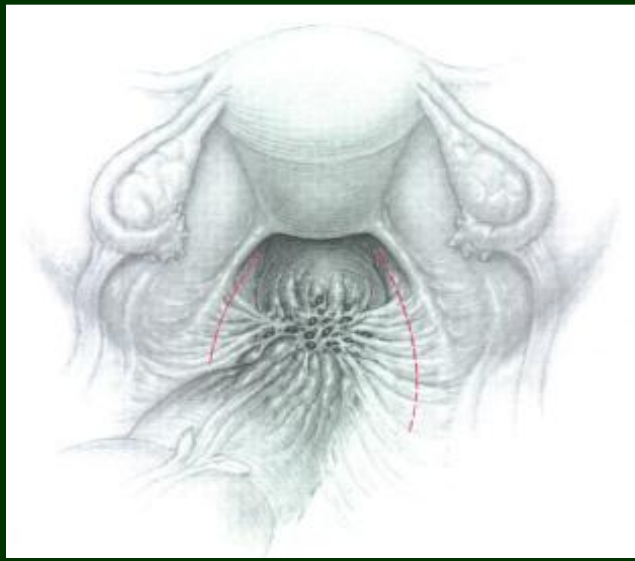




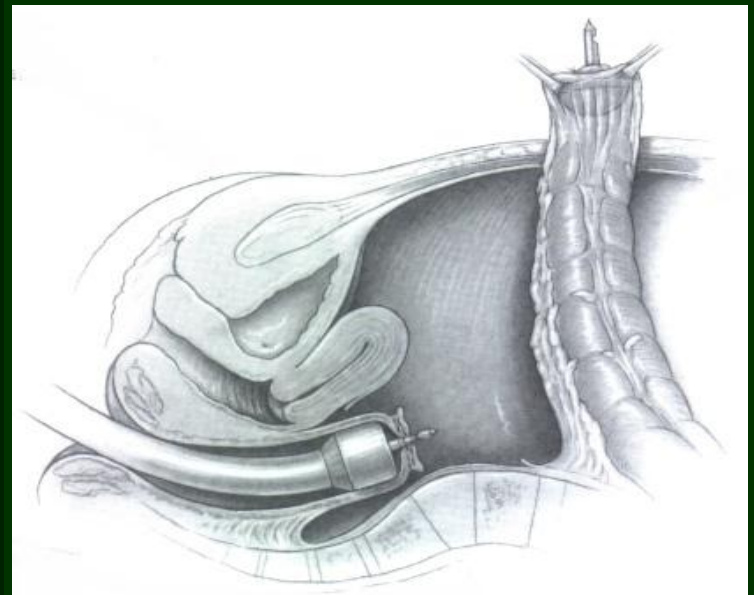
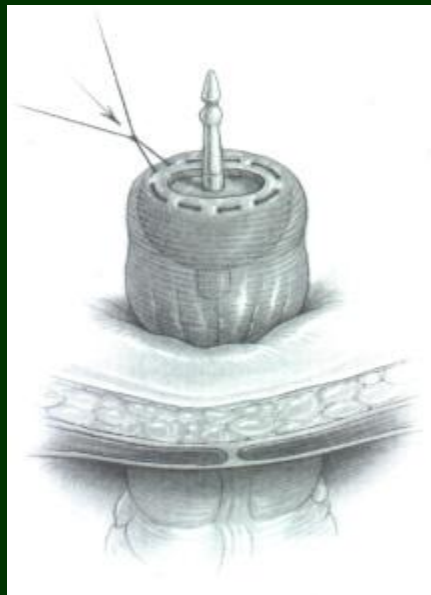
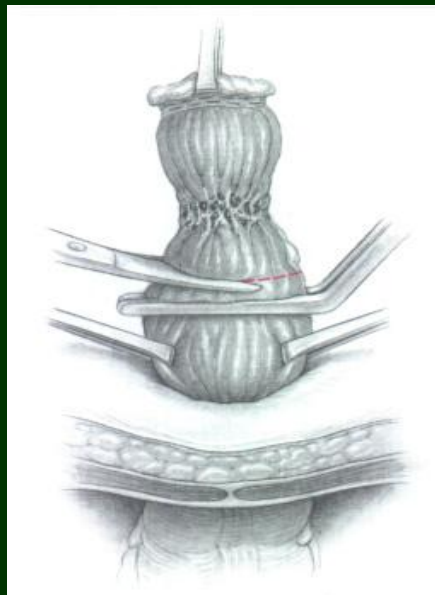
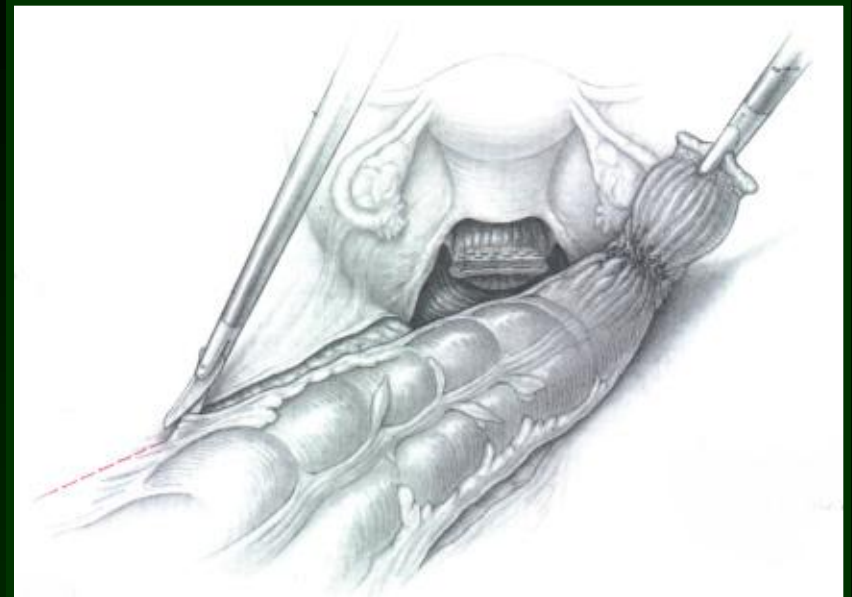
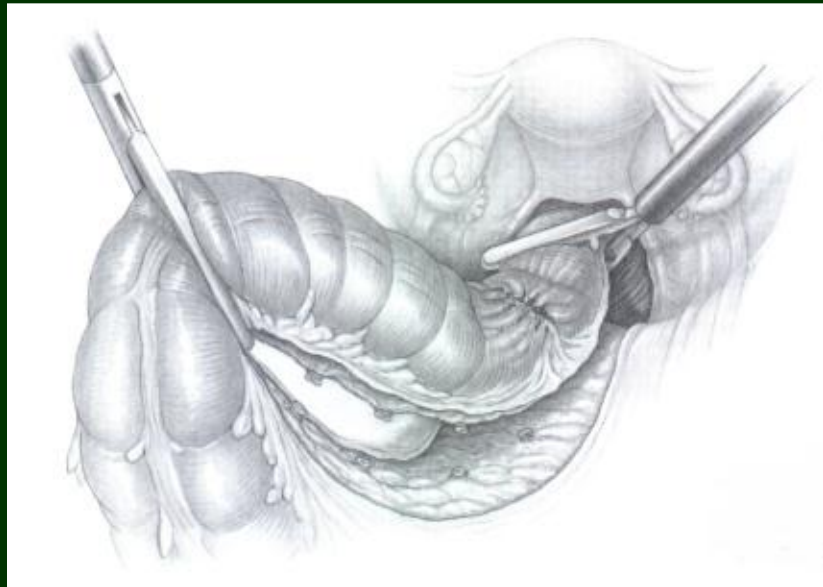
# Endometriosis IV° - Endometriosis Douglas cavity



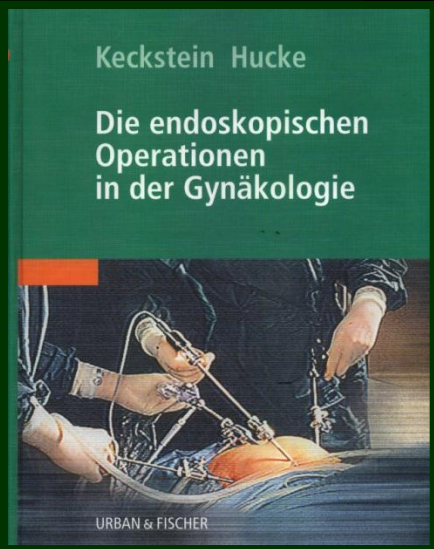
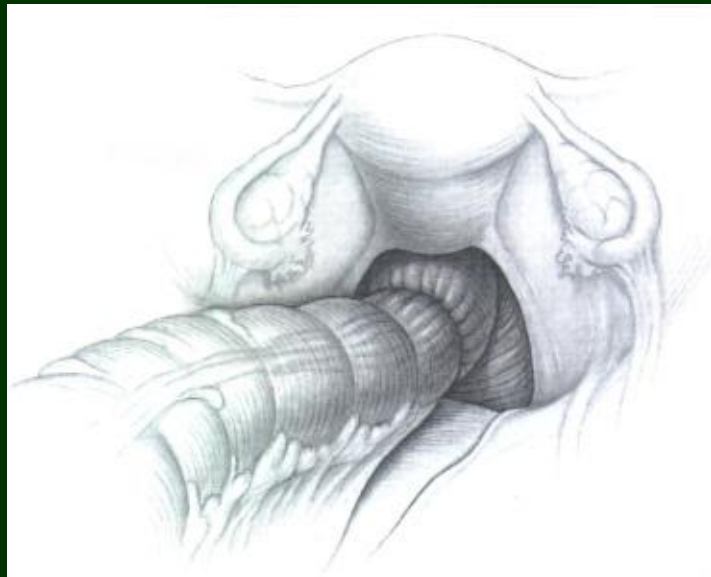
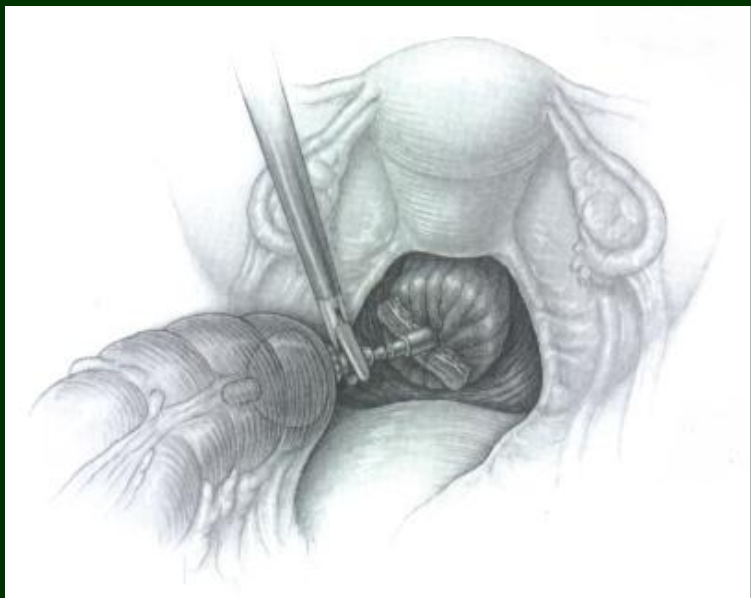
# Endometriosis IV° - resection sigma or rectum (1)



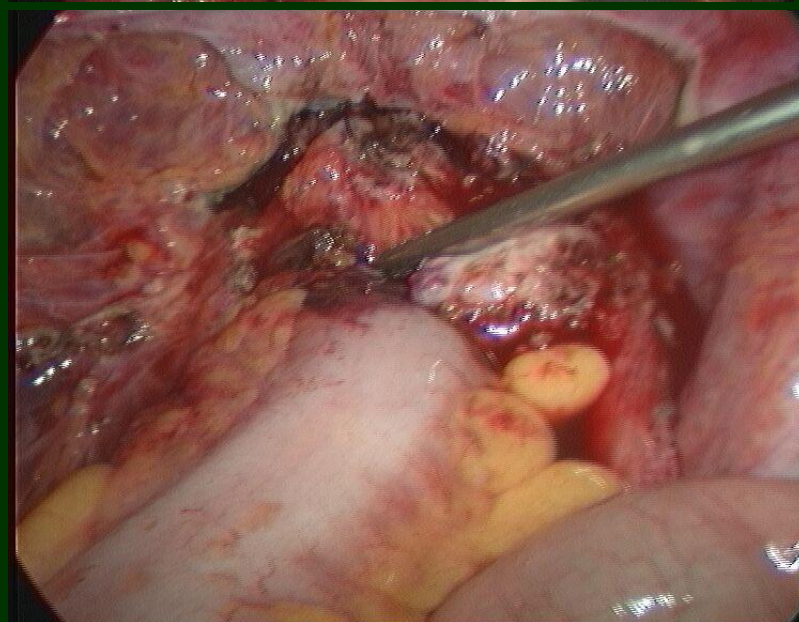
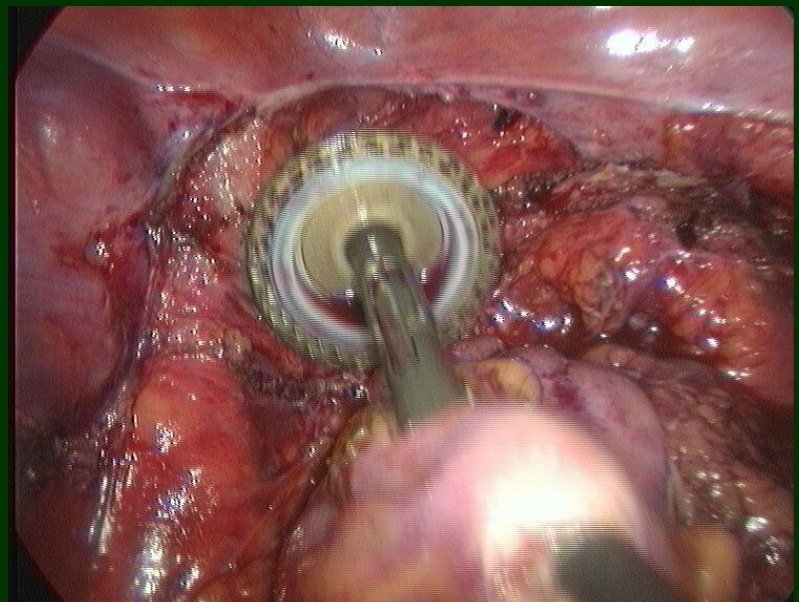
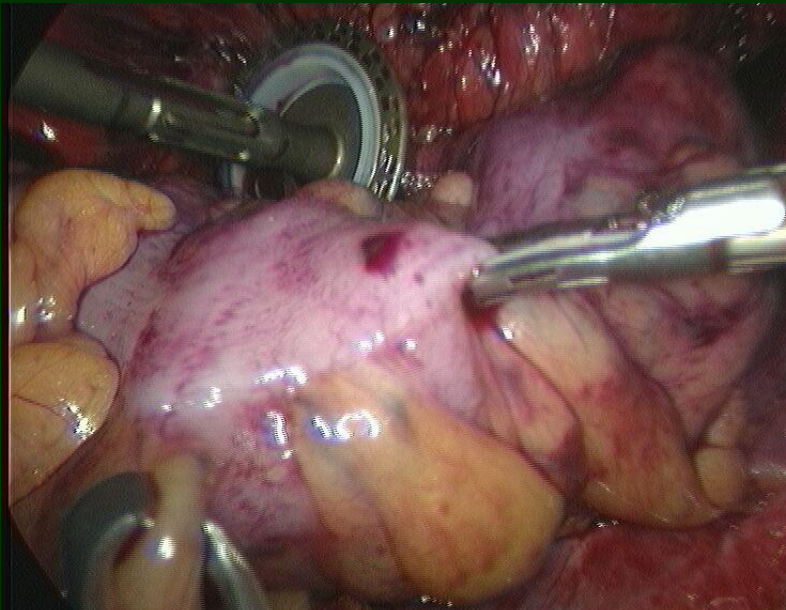
# Endometriosis IV° - resection sigma or rectum (2)



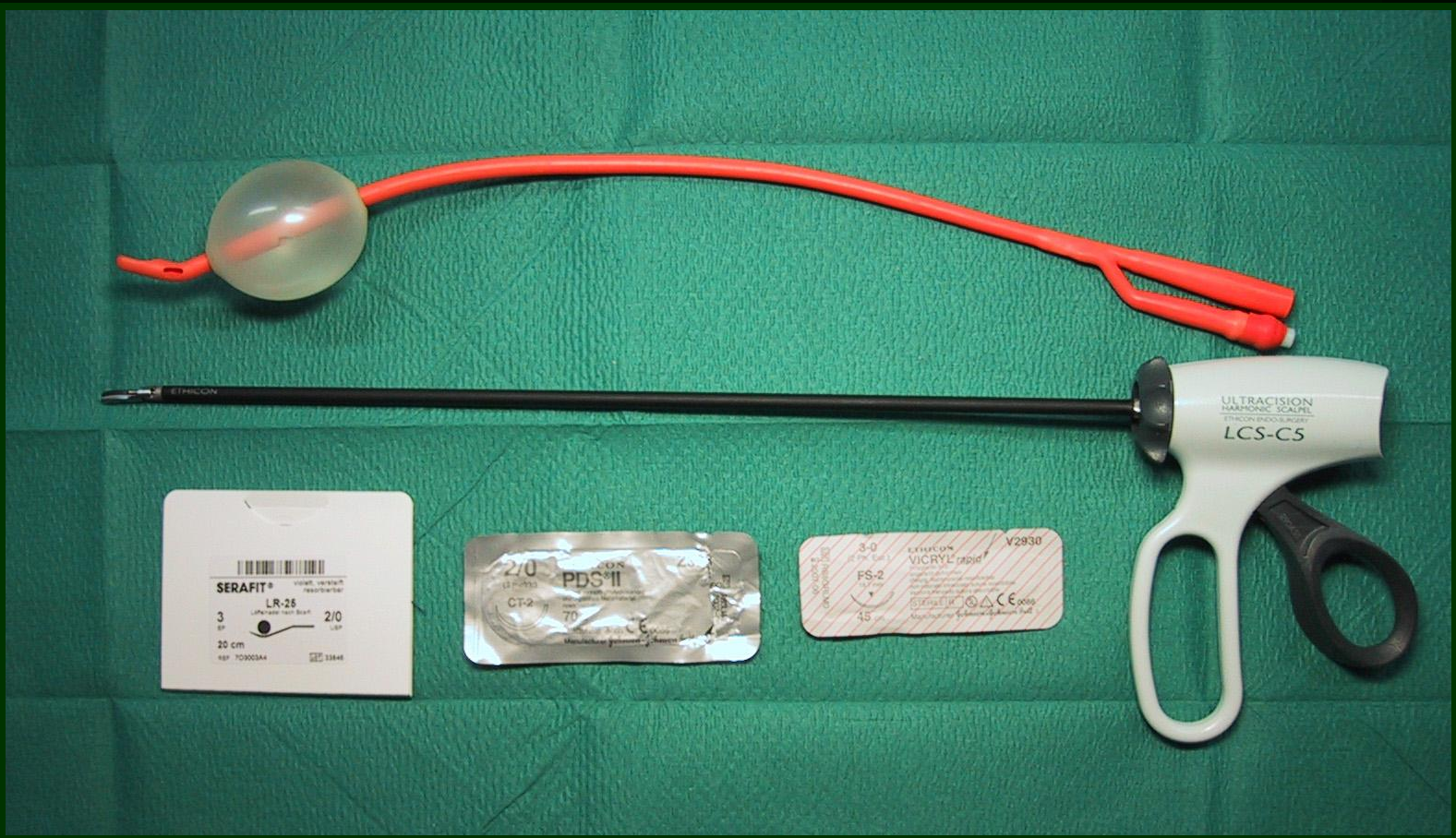
# Endometriosis IV° - resection sigma or rectum (3)



# Endometriosis IV° - resection sigma/rectum + hysterectomy



# Laparoscopic hysterectomy – instruments/material



# Endometriosis II°



**Left ovarian cyst and adhesions  
Cyst extirpation and adhesiolysis**



# Endometriosis II°



**Peritoneal mesothelioma (associated with endometriosis)  
Resection and coagulation with Ultracision**





# Endometriosis III°



**Left ovarian cyst and adhesion, single left kidney, uterus bicornis  
Adnectomy left side and adhesiolysis, pre-operative ureter-stent**



# Endometriosis III°



**Severe endometriosis with dysmenorrhea, endometriosis bladder, endometriosis cyst  
Hysterectomy and left adnectomy**



# Endometriosis IV°



**Severe endometriosis with stenosis of sigma and infiltration of the bladder  
Resection of sigma, resection of endometriosis, debulking and adhesiolysis**



# Endometriosis IV°



... 6 months later !



# Be careful !



## ... it`s a risky job!

# Thank you very much !!!

