SPITAL LINTH

Prolaps: Anteriore Rektopexie nach D’Hoore

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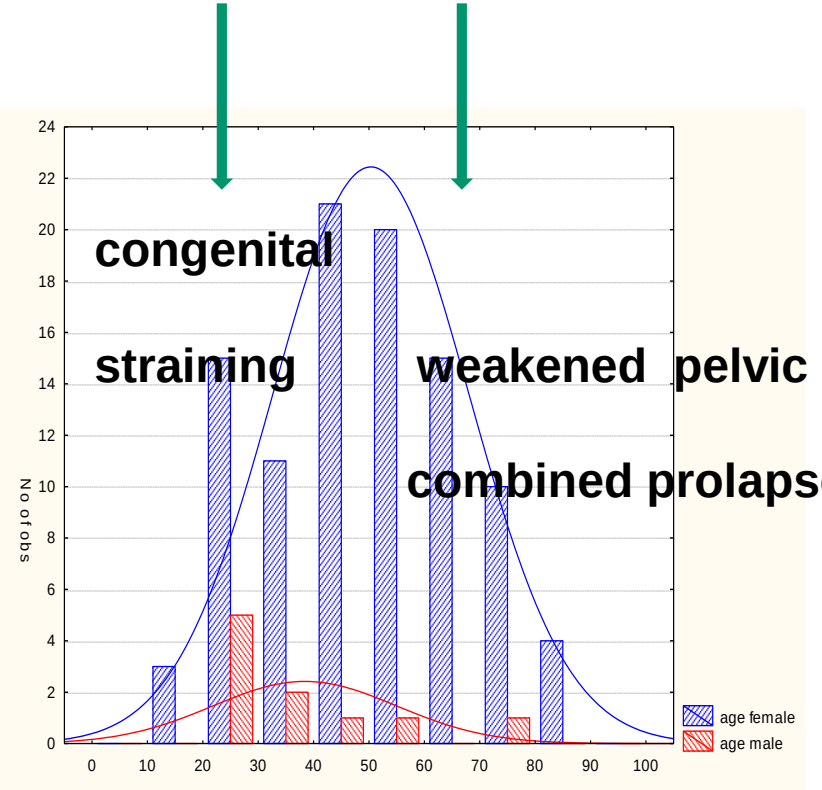
Rectal prolapse

pathophysiology



female pathology (90%)

Age /gender distribution patient series total rectal prolapse

Symptoms

- Bleeding
- Metaplasia of mucosa
- Strangulation necrosis
- Solitary rectal ulcer
- Soiling and constipation
- Pudendal neuropathy

Treatment:

More than 100 different procedures

Abdominal Surgery

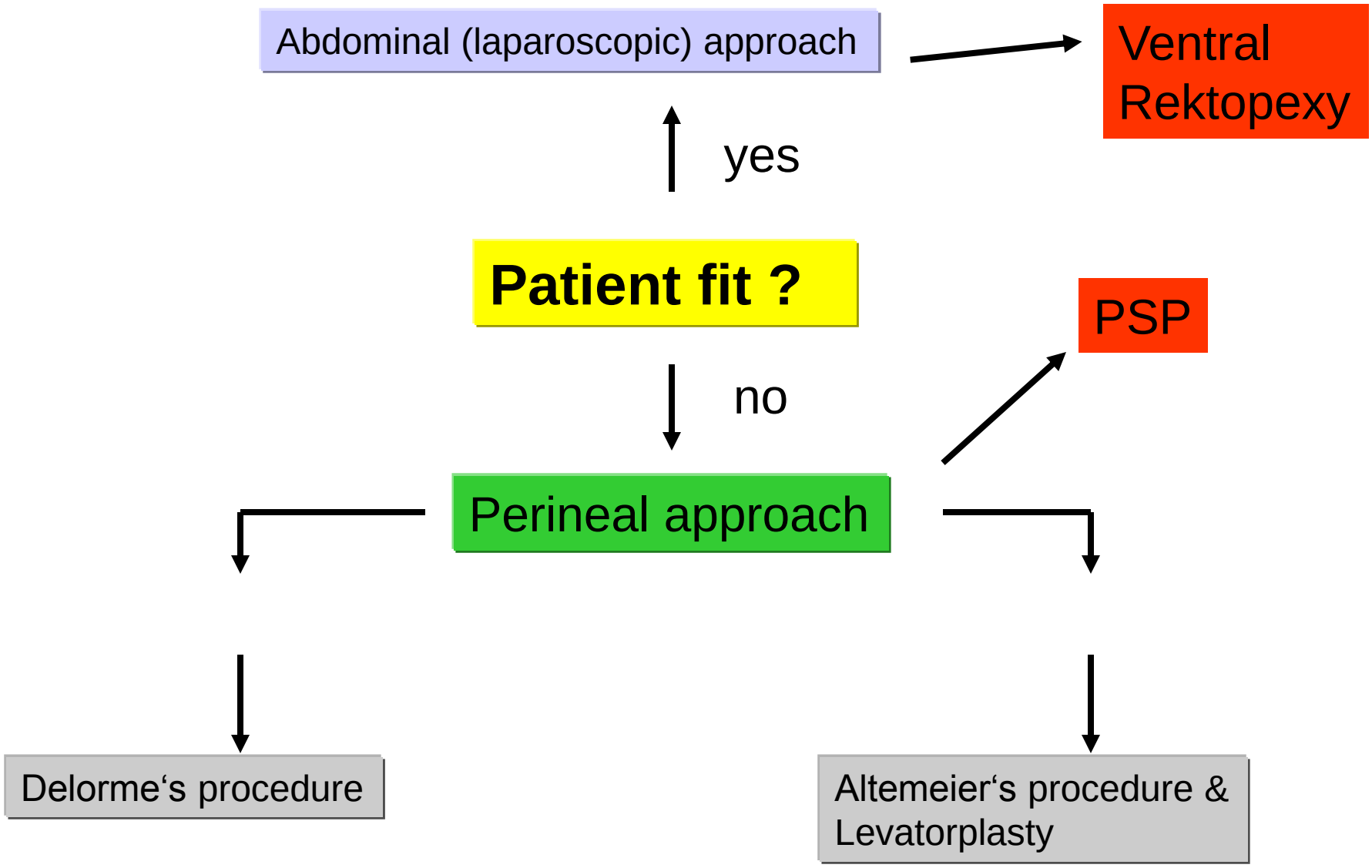
- posterior: Wells (Ivalonge/polyester[1])
- anterior: ‚Ripstein' (polypropylene[2])
  Suture rectopexie (Sudeck)
  Mobilization only

- Open
- Laparoscopic
- Robot-assisted[3]

- with resection
- w/o resection

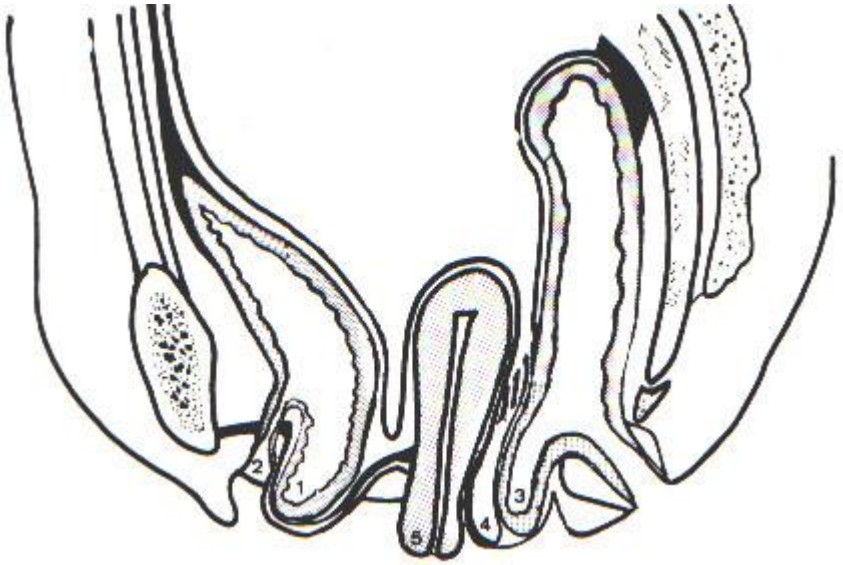
[1] Dulucq JL et al, Surg Endosc 2007 [2] D'Hoore A et al, Surg Endosc 2006 [3] Heemskerk J et al, DCR 2007

Rectal Prolapse



Pelvic floor weekness

- Cystocele
- Colpocele
- Rectocele
- Intussuception
- Rectal Prolapse



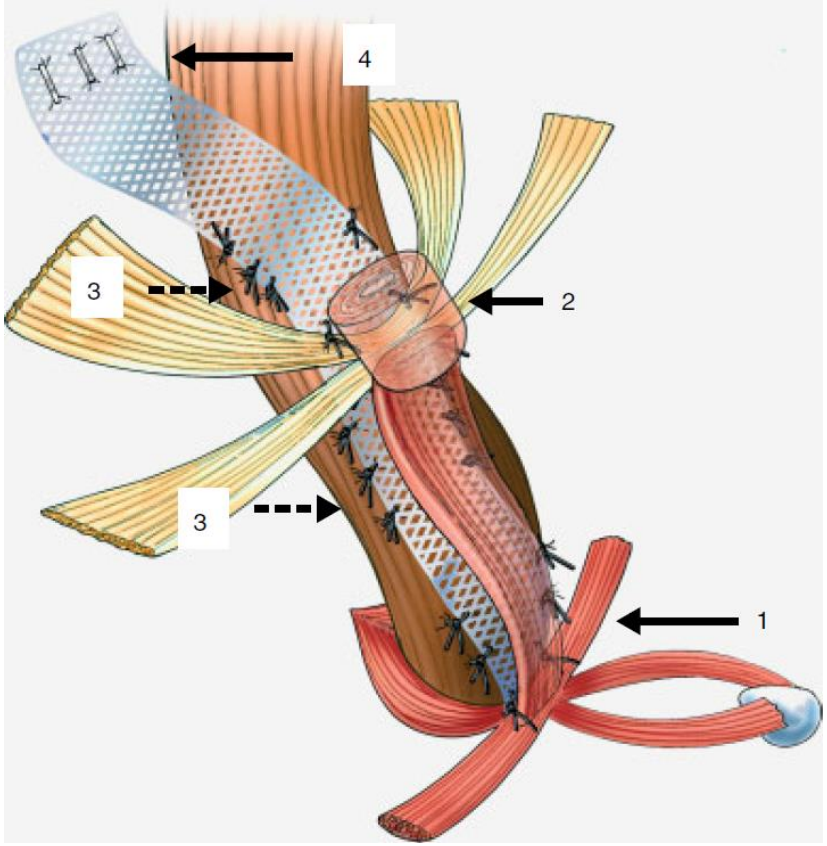
→ Pelvic organ prolapse (POP)

Anatomical basis for complex prolapse syndromes of the posterior and middle pelvic compartment

Level I **cardinal-uterosacral complex**	**Vaginal Vault prolapse** **Enterocele**
Level II **rectovaginal septum**	**High Rectocele**
Level III **perineal body**	**Perineocele** **Descending perineum** **Sphincter defects**

De Lancey *Am J Obstet Gynecol* 1999;**180**:815-23.

Laparoscopic ventral rectopexy



Correct the cause : full thickness intussusception

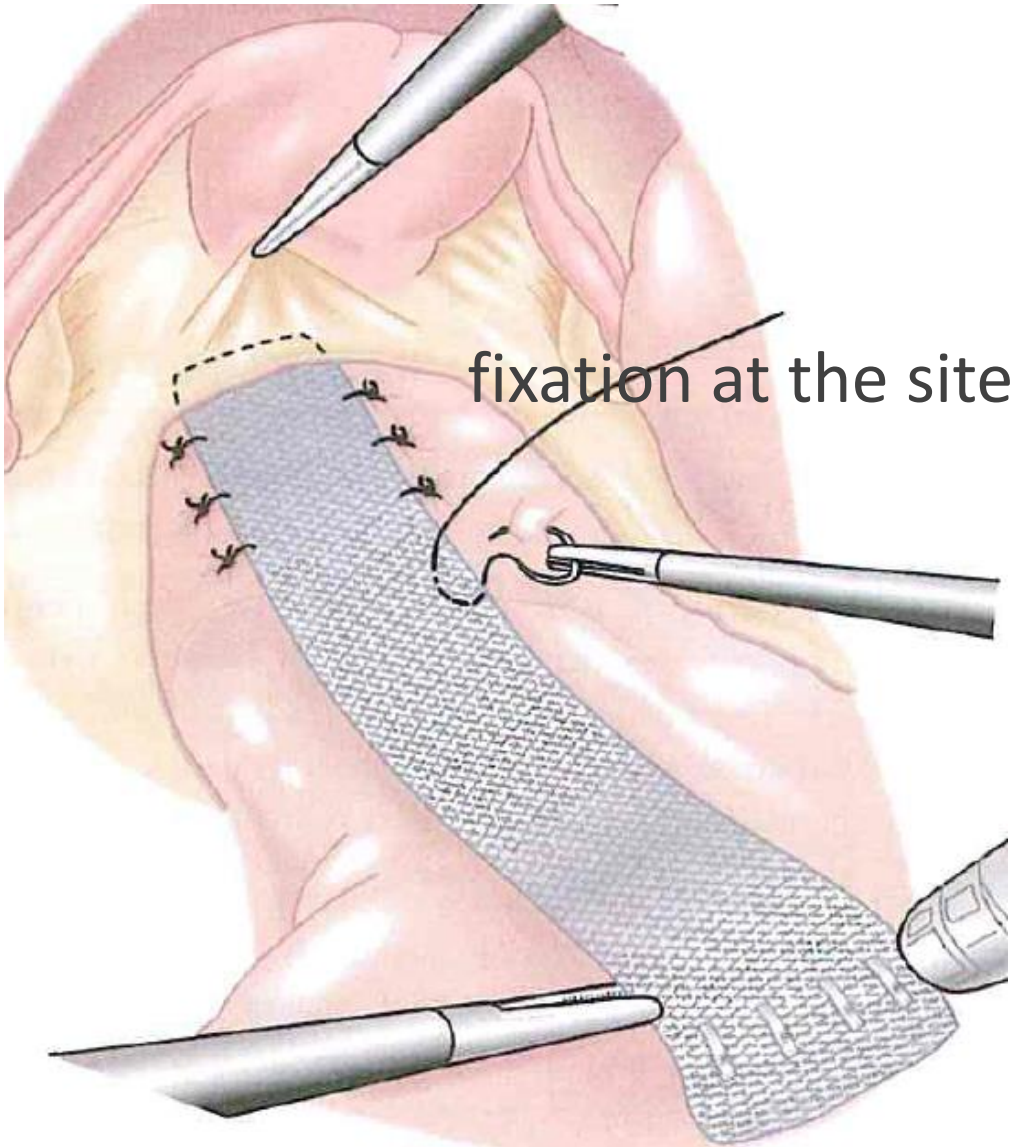
Correct concomitant enterocele (level I-II), rectocele

Preserve rectal ampulla

Avoid autonomic nerve damage

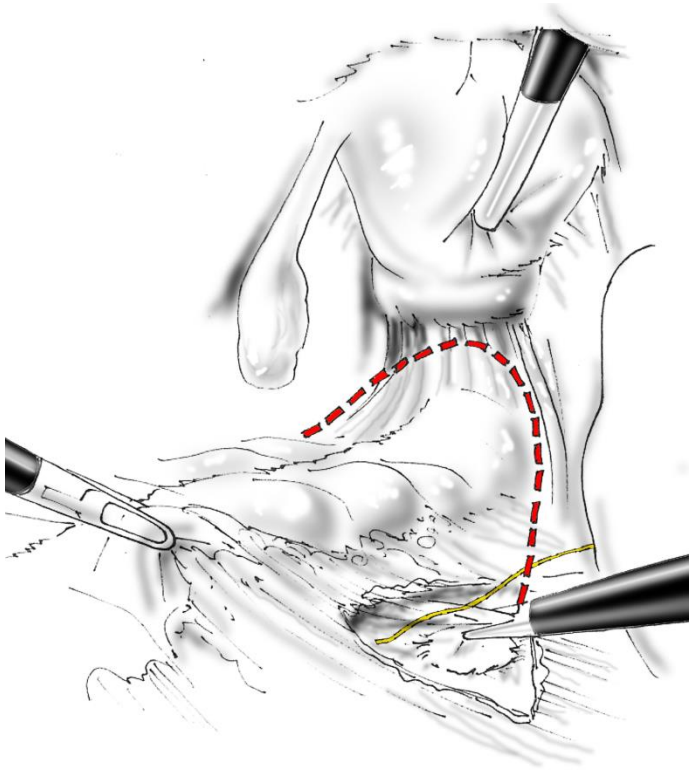
Reproducible, safe, laparoscopic

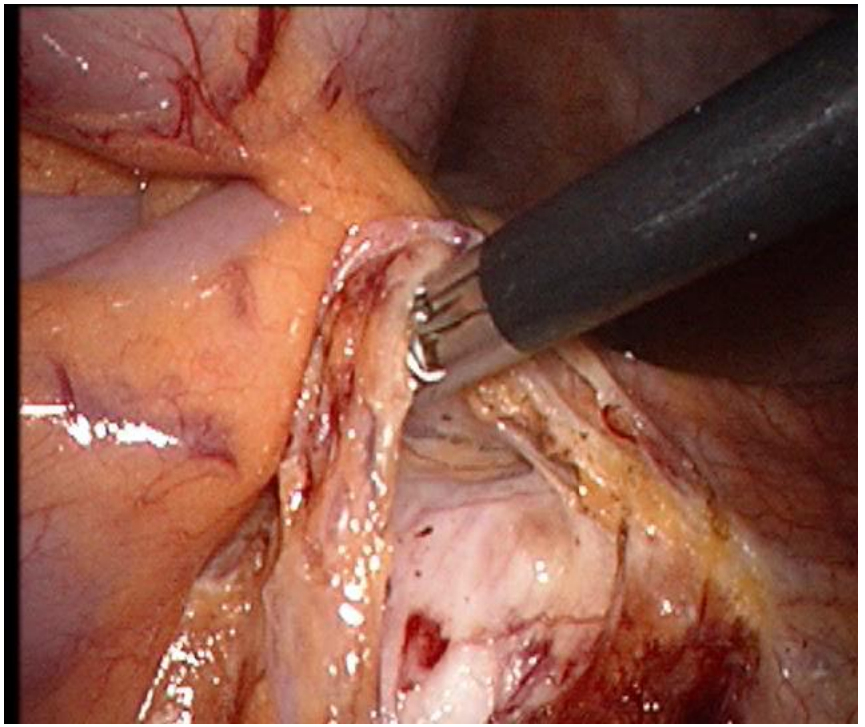
D'Hoore et al, Br J Surg 2004

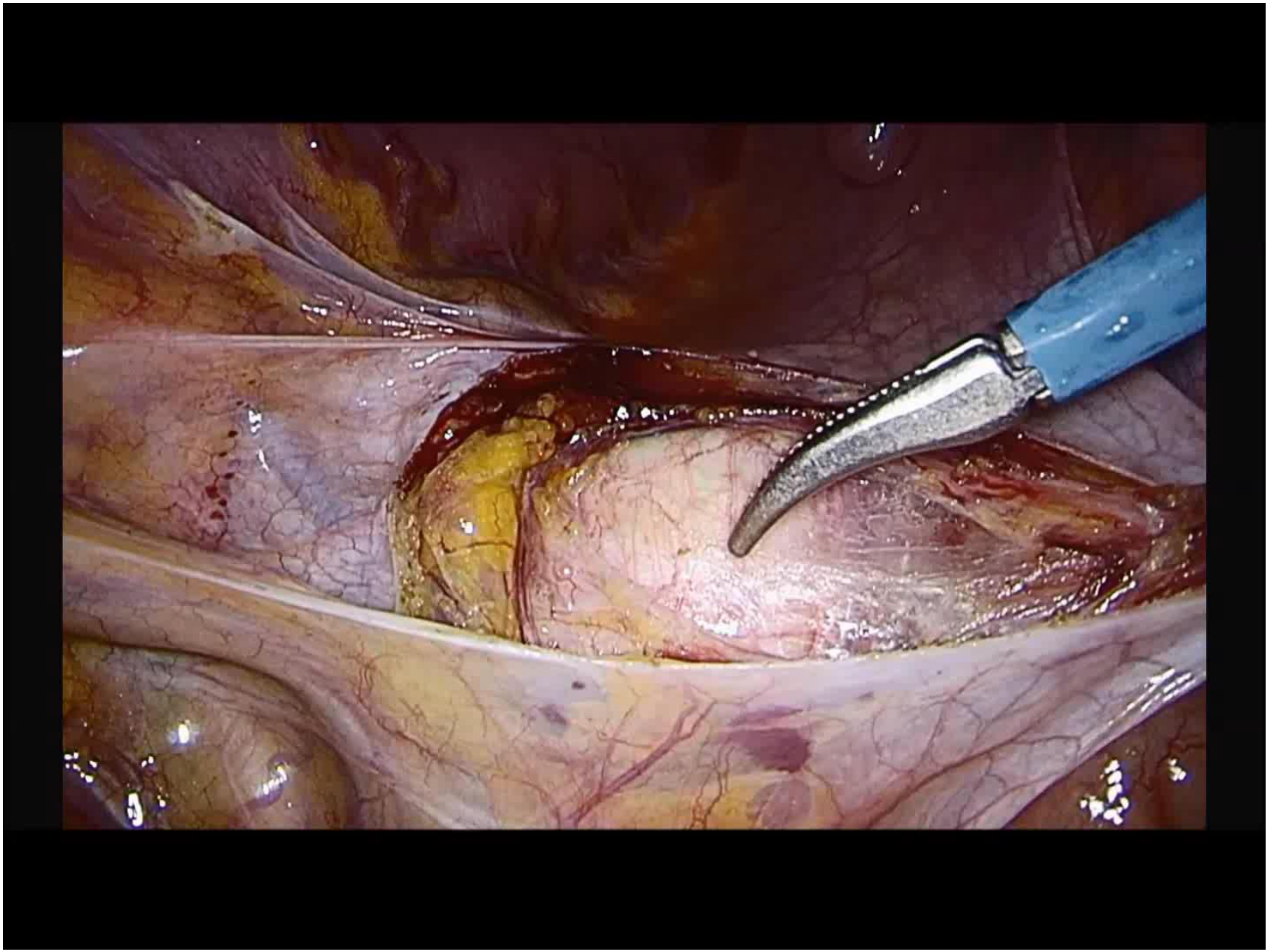


fixation at the site of the intussusception

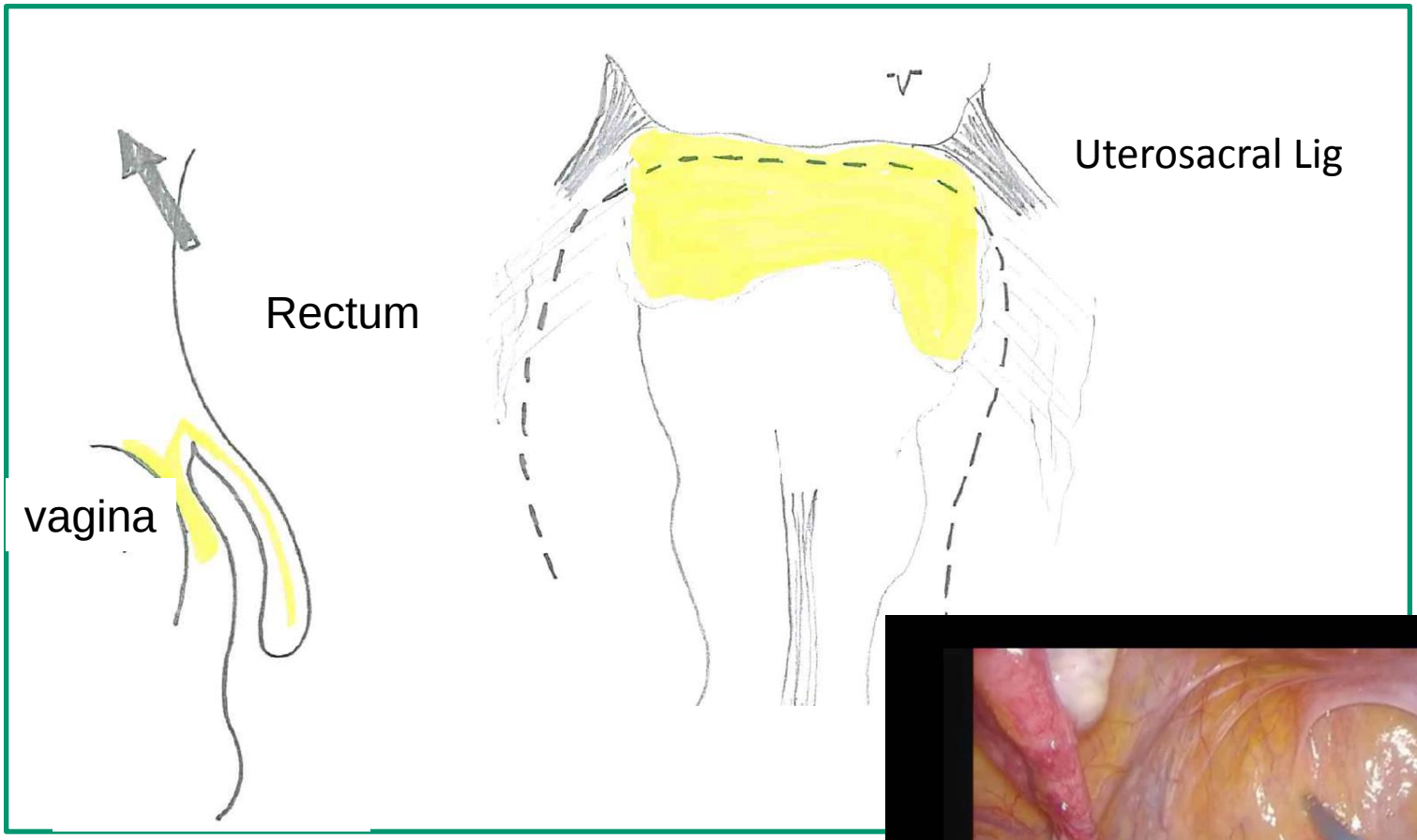
Sacral promontory dissection right hypogastric nerve

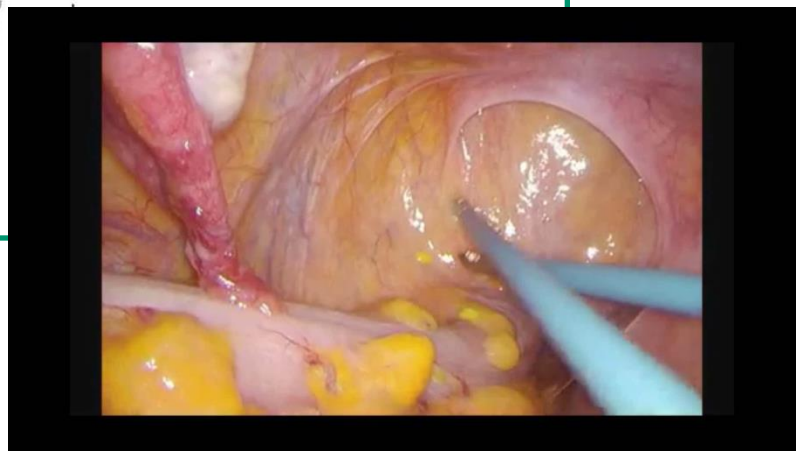


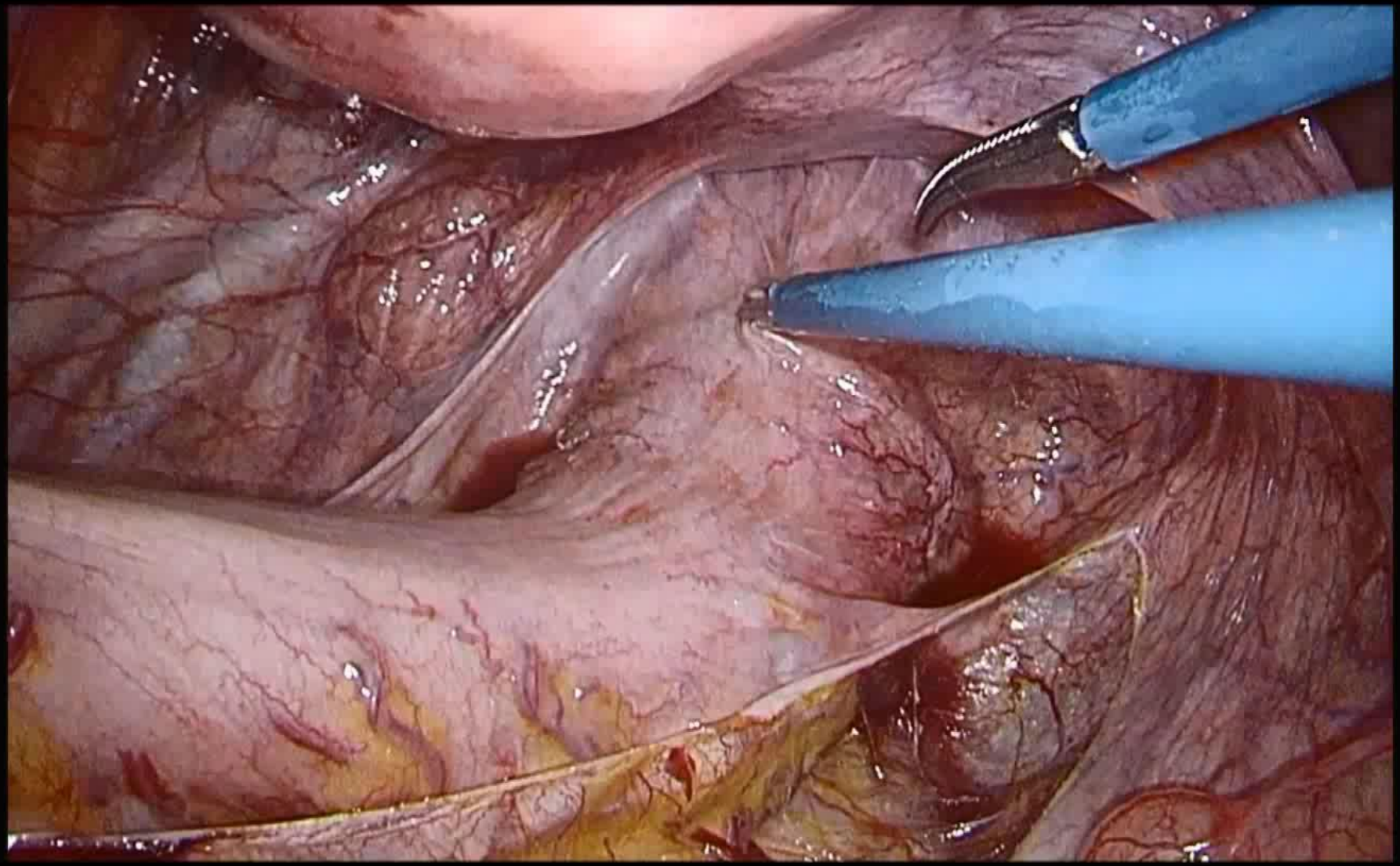




Firmly retract the prolapse to expose the fold of DouglasDouglas

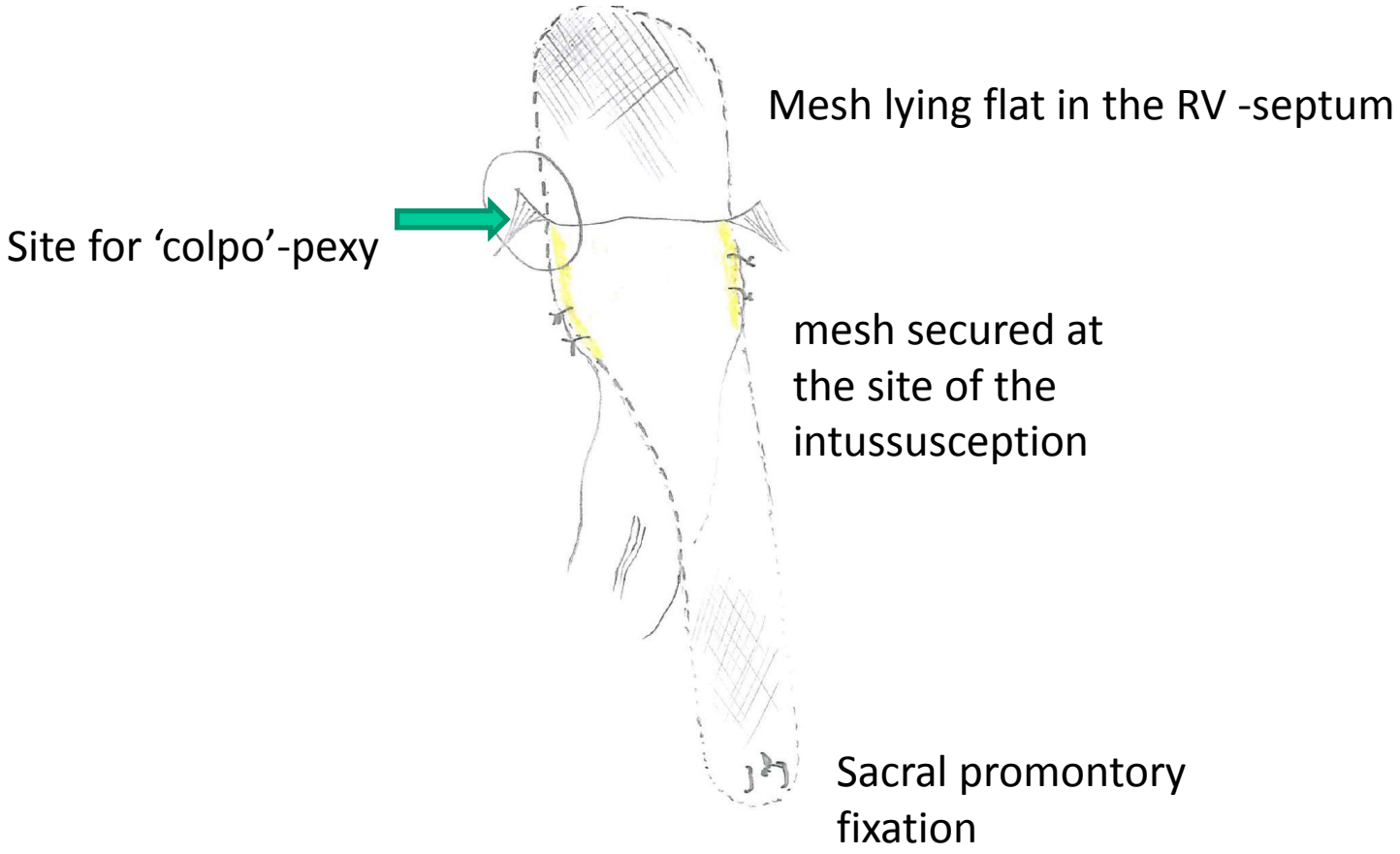


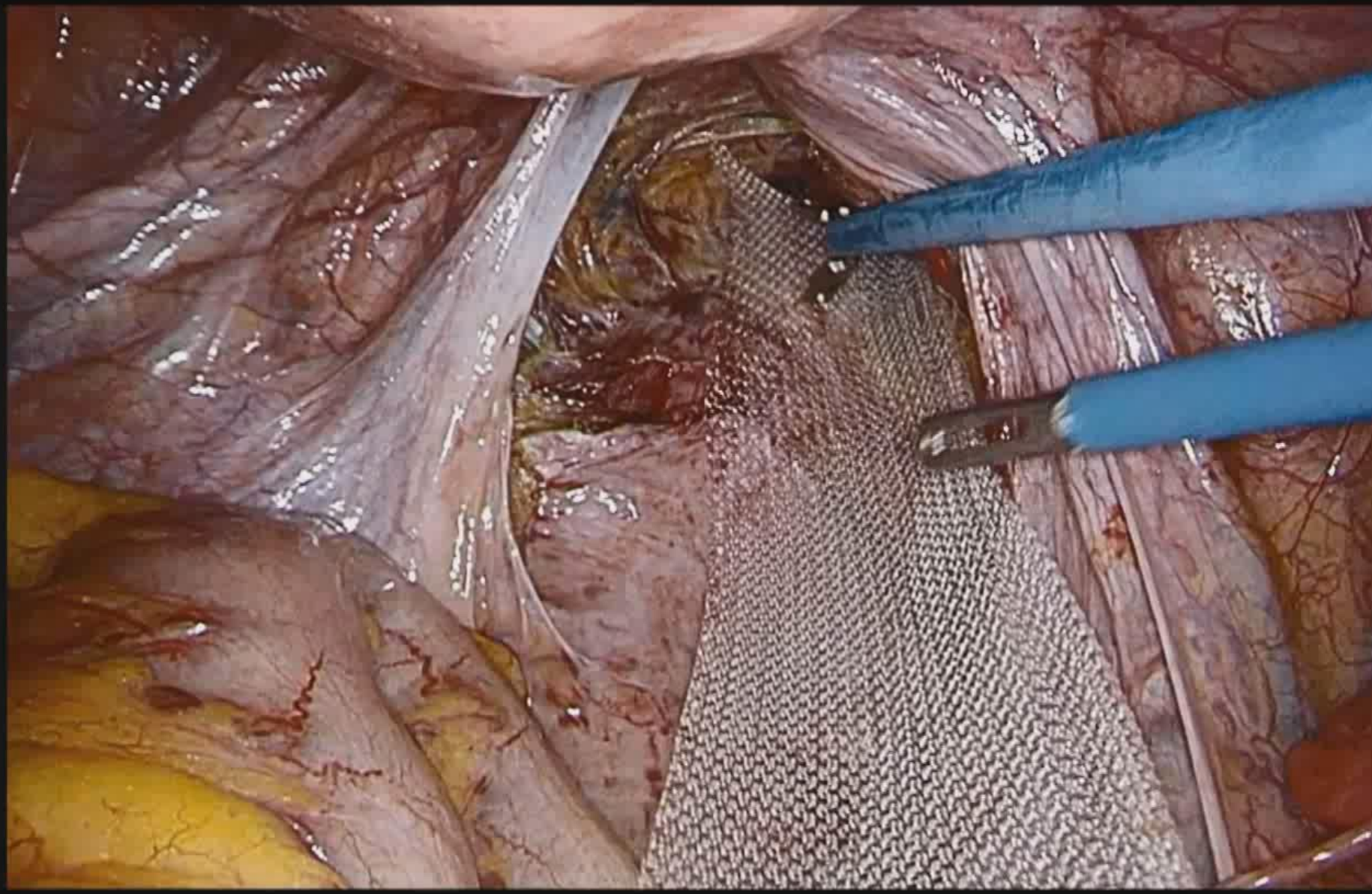




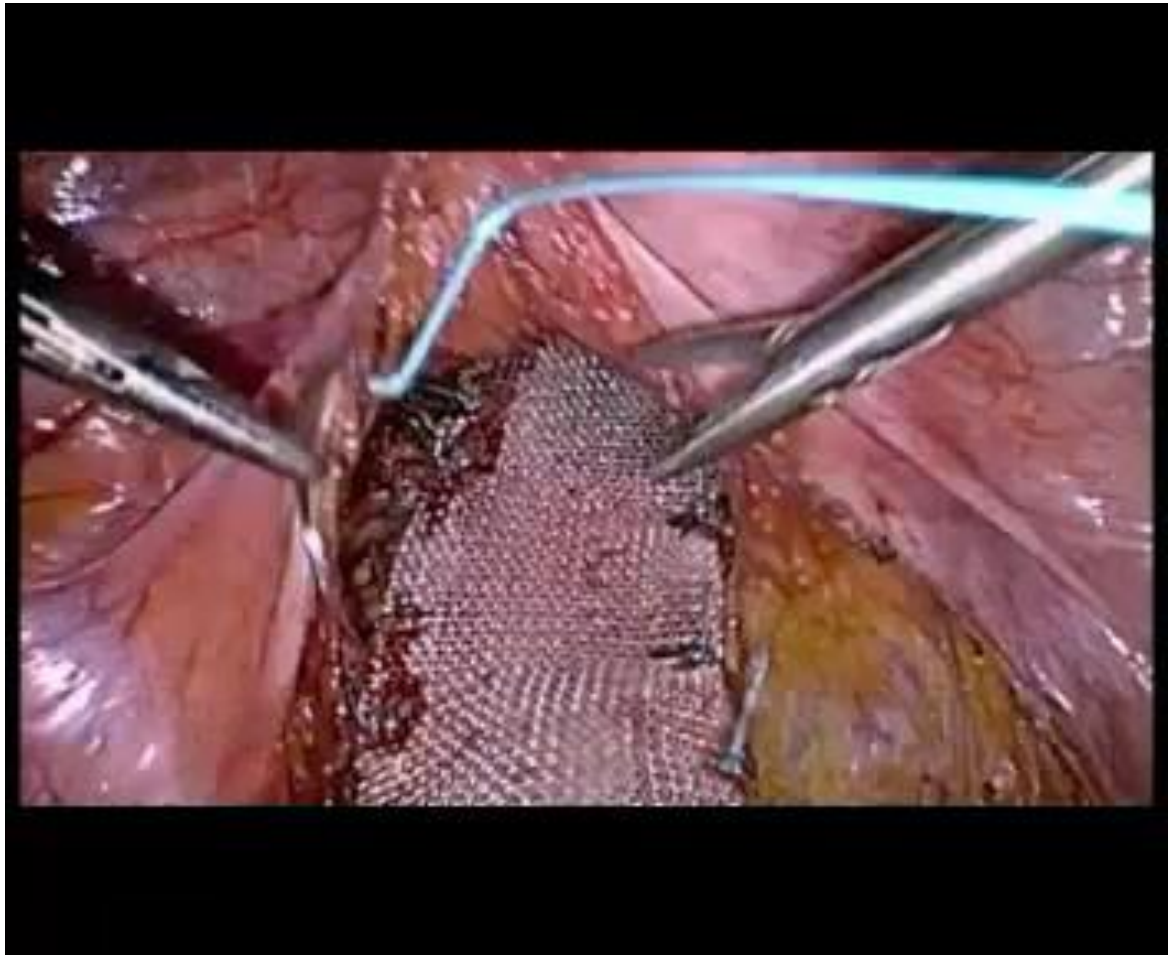
lap VR - dissection pouch of Douglas

Fixation at the level of the intussusception essential



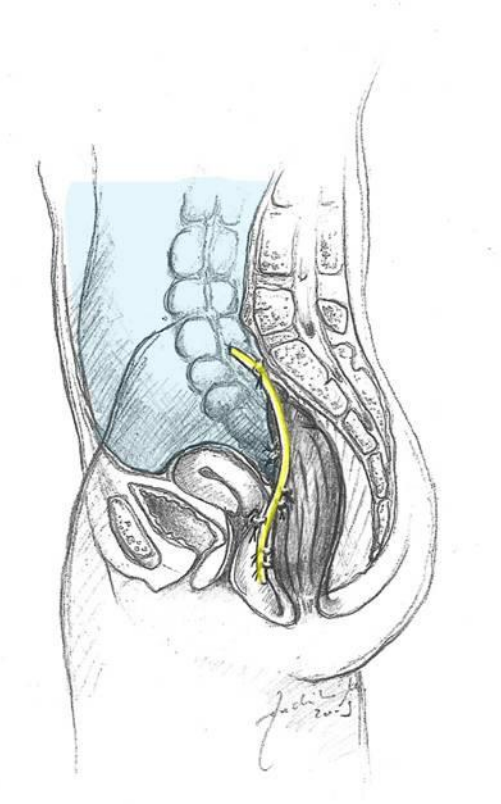


middle compartment
(enterocoele, vaginal vault prolapse)



Ventral Rectopexy

- **18 patients**
- **Follow-up 24 months (13-35)**
- **Success 14/17 (82%)**
- **CSS 12.6 to 3.9 (P<0.05)**
- **RSS 14.3 to 2.3 (P<0.05)**
- **No incontinence, no urge**



D'Hoore *et al.*, Br J Surg 2004

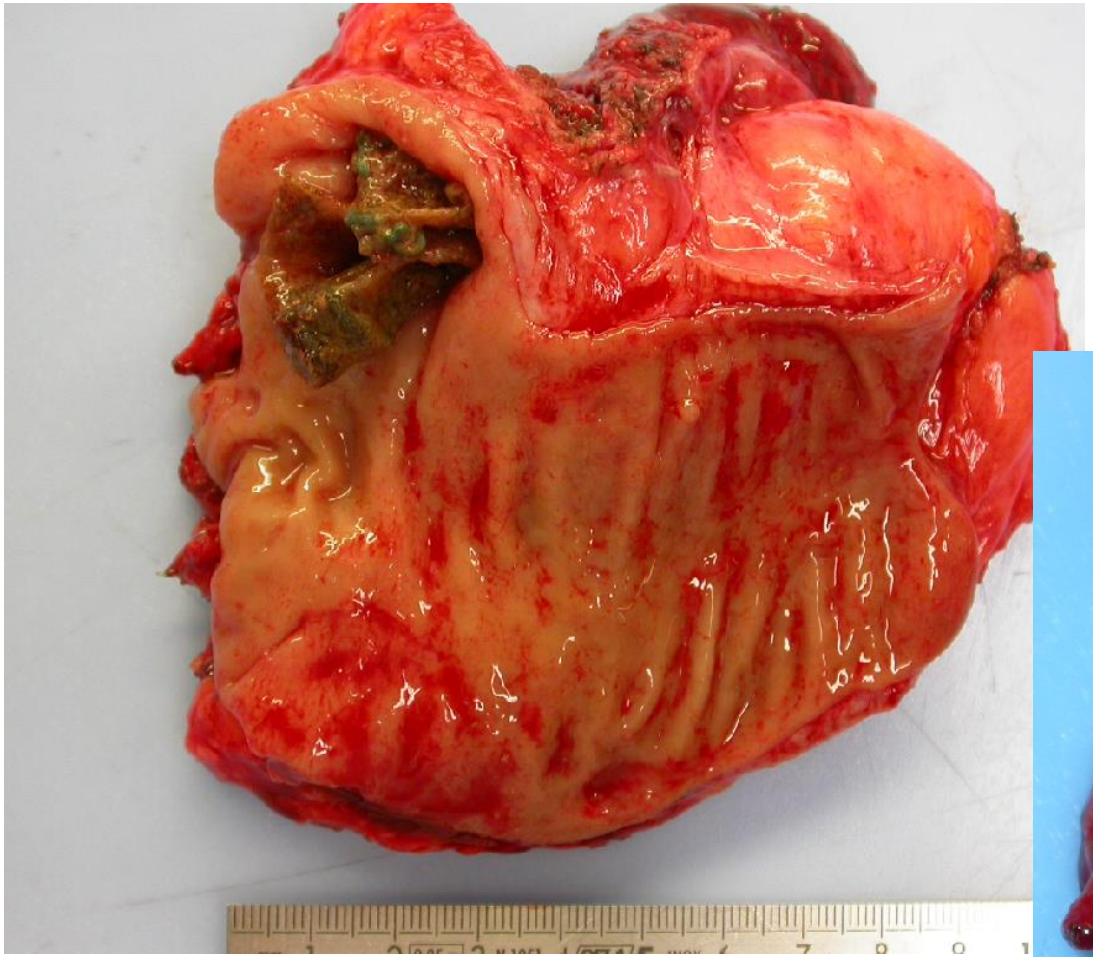
Ventral Rectopexy

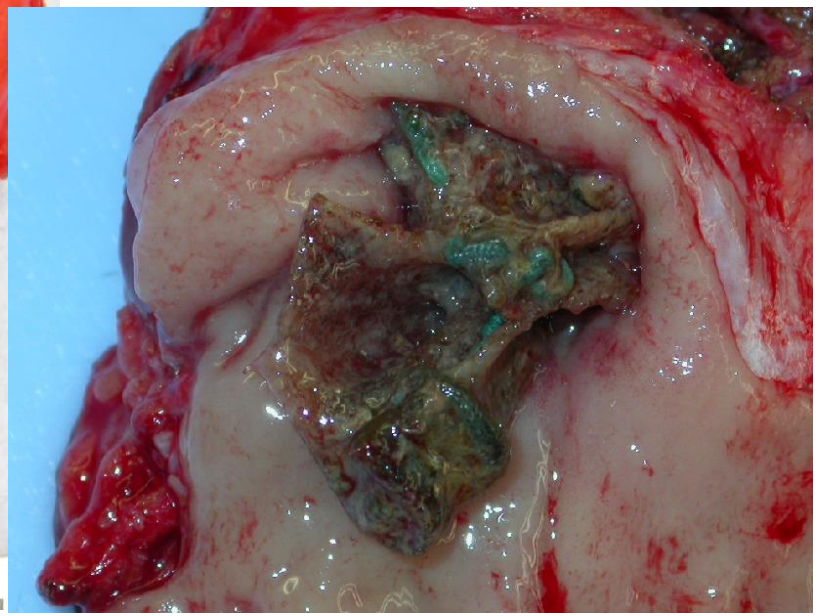
	year	n	mo FU	% recurrence
D'Hoore et al	2004	42	49.3	4.7
D'Hoore et al	2006	109	61.0	3.6
Boons et al	2007	85	29.0	2.0
Slawik er al	2008	44	54.0	0
Wijffels et al	2009	80	23.0	3.0
Bissett et al	2010	728	Sys Rev	3.4

mesh-related complications

overall 9/498 (1.8%) only to the vagina

none in the total rectal prolapse





abort procedure if lesion to muscular wall of the rectum or vagina

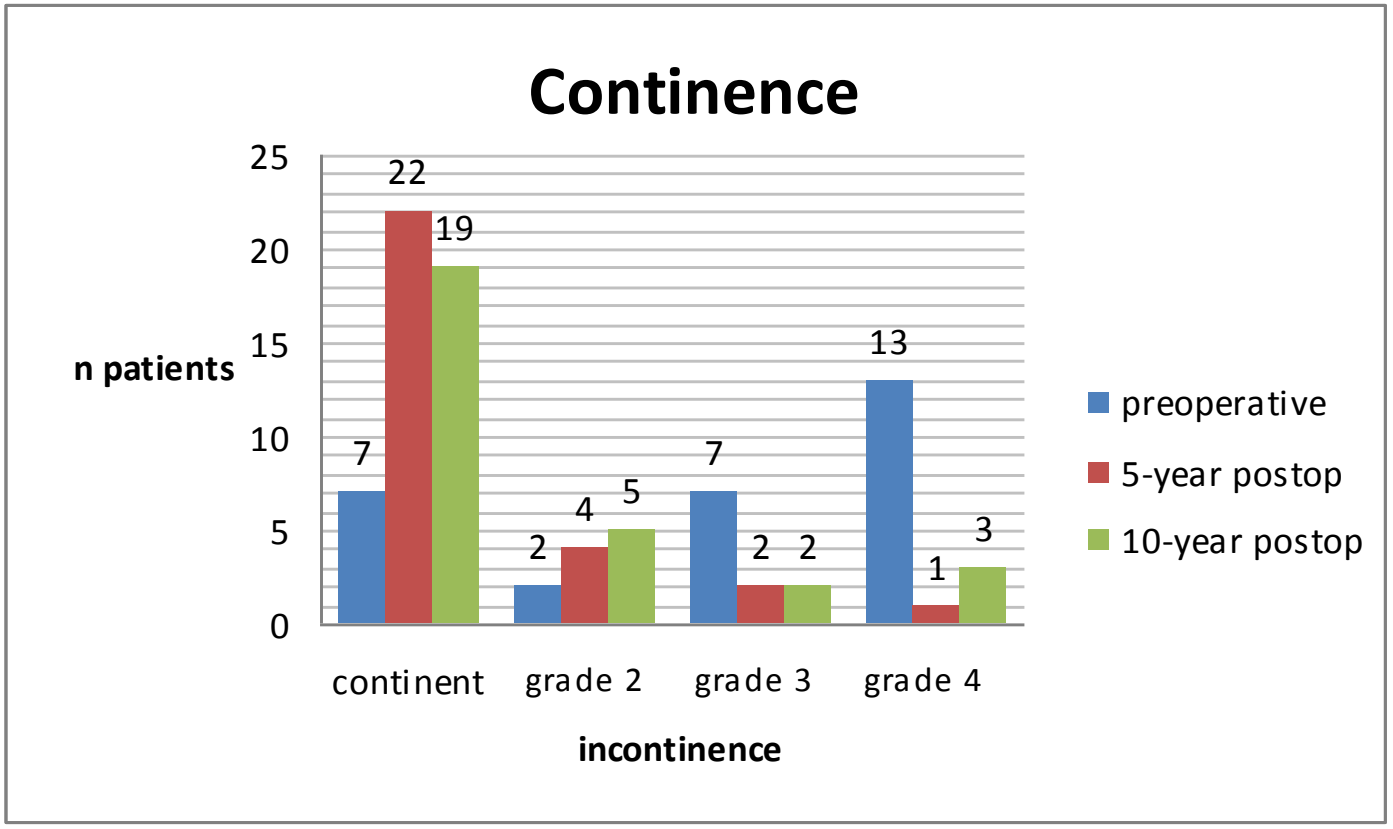
Results n=919 septic mesh complications:

Transvaginal prolapse repair: erosion 10.3% within 12 months (n=11.785)

Sacral colpopexy: erosion 4.7% within 23 months (n=1.869)

Ten-year-outcome after LVR

N = 29 patients

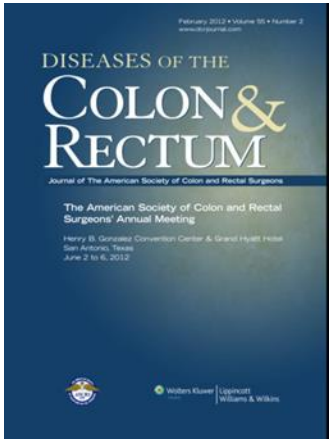


mean Wexner-score (S.D.): **14.05** (3.5) **3.05** (5.8) **4.90** (6.8)

Safety of Laparoscopic Ventral Rectopexy in the Elderly: Results From a Nationwide Database

Fatma A. Gultekin, Mark T. C. Wong, Juliette Podevin, Marie-Line Barussaud, Myriam Boutami, Paul A. Lehur, Guillaume Meurette

- 4303 patients (98.2% women)
- 1263 (29.4%) were >70 years old (mean age, 76.2 ± 5.0 years)
- Retrospective Cohort-study



Gultekin F. et al, DCR 2015

Safety of Laparoscopic Ventral Rectopexy in the Elderly: Results From a Nationwide Database

Parameters, univariate analysis	*Group A (<70 y)*	*Group B (≥70 y)*	*p*
Minor postoperative complications, %	5.0	8.4	
Urinary tract infection	2.5	4.7	<0.001
Urinary retention	0.7	1.3	<0.001
Wound complications	0.6	1.1	<0.001
Bleeding	0.7	0.8	<0.001
Ileus	0.5	0.5	<0.001
Major postoperative complications, % (n)	0.7	0.9	
Accidental puncture or laceration	0.6 (19)	0.5 (6)	0.40
Intra-abdominal abscess	–	0.1 (1)	0.40
Acute respiratory failure	0.1 (2)	0.2 (2)	0.40
Sepsis	0.1 (1)	0.1 (1)	0.40
Length of stay (day, mean ± SD)	4.7 ± 1.8	5.6 ± 3.6	<0.001

Minor complications

5,0% vs 8.4% (P<0.001)

Major complications

0.7% vs 0.9% (P=0.40)

Gultekin F. et al, DCR 2015

Safety of Laparoscopic Ventral Rectopexy in the Elderly: Results From a Nationwide Database

- Large number of patients
- Multicenter study

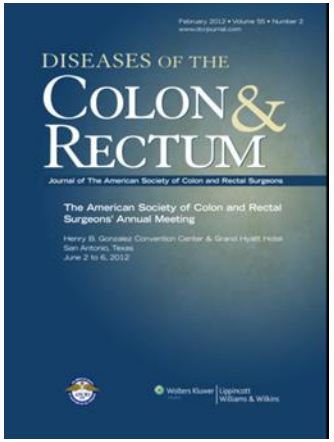
- Retrospective design
- Data from a national register
- Selection bias?

Gultekin F. et al, DCR 2015

A Multicenter Collaboration to Assess the Safety of Laparoscopic Ventral Rectopexy

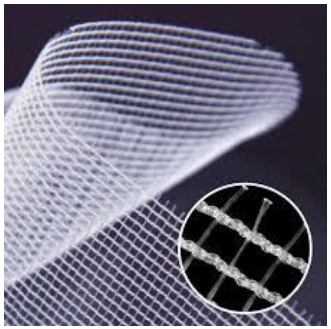
Charles Evans, Andrew R. L. Stevenson, Pierpaolo Sileri, Mark A. Mercer-Jones, Anthony R. Dixon, Chris Cunningham, Oliver M. Jones, Ian Lindsey

- 2203 patients (93 % women), median age, 59y (range 15-82)
- Retrospective review from a pelvic database in 5 centers
- Follow up 36 months



Evans C. et al, DCR 2015

A Multicenter Collaboration to Assess the Safety of Laparoscopic Ventral Rectopexy



Mesh frequency (%)		*Mesh erosions frequency, n*
Synthetic, N = 1764 (80.1%)	Polypropylene, n = 1325 (60.1%)	23
	Polyester, n = 279 (12.7%)	18
	Titanium-coated polypropylene, n = 160 (7.2%)	1
		Total = 42
Biological, N = 439 (19.9%)	Porcine dermal collagen, n = 309 (14.0%)	3
	Porcine intestine submucosa, n = 30 (5.9%)	0
		Total = 3

Erosion in 2 %

Mean after 27 months

20 vaginal

17 rectal

7 recto-vaginal fistula

1 perineal

Evans C. et al, DCR 2015

A Multicenter Collaboration to Assess the Safety of Laparoscopic Ventral Rectopexy

- Erosion rate is low (2 %)
- Erosion occures in the first 3 years
- Do not use polyester mesh
- Use absorbable suture
- Biological implants should be considerd in treating young women

Evans C. et al, DCR 2015

A Multicenter Collaboration to Assess the Safety of Laparoscopic Ventral Rectopexy

- Large number of patients
- Multicenter study

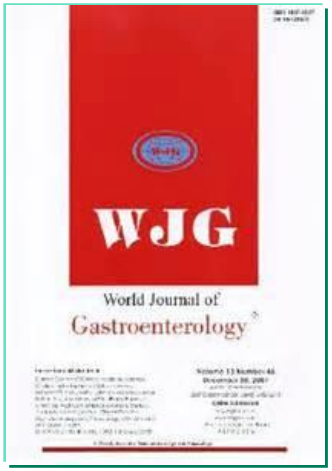
- Retrospective design
- Not randomised (syntetic/biological Mesh)
- Selection bias?

Evans C. et al, DCR 2015

Anterior rectopexy for full-thickness rectal prolapse: Technical and functional results

Jean-Luc Faucheron, Bertrand Trilling, Edouard Girard, Pierre-Yves Sage, Sandrine Barbois, Fabian Reche

- Retrospective review from database (MEDLINE, PubMed, EMBASE….)
- 12 Non-randomized case studies with 574 patients



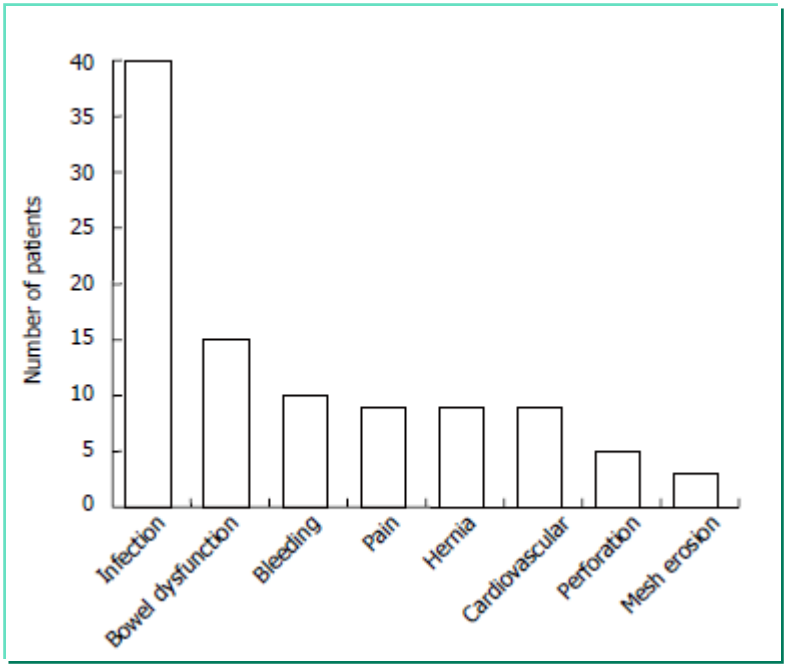
Faucheron J-L. et al, WJG 2015

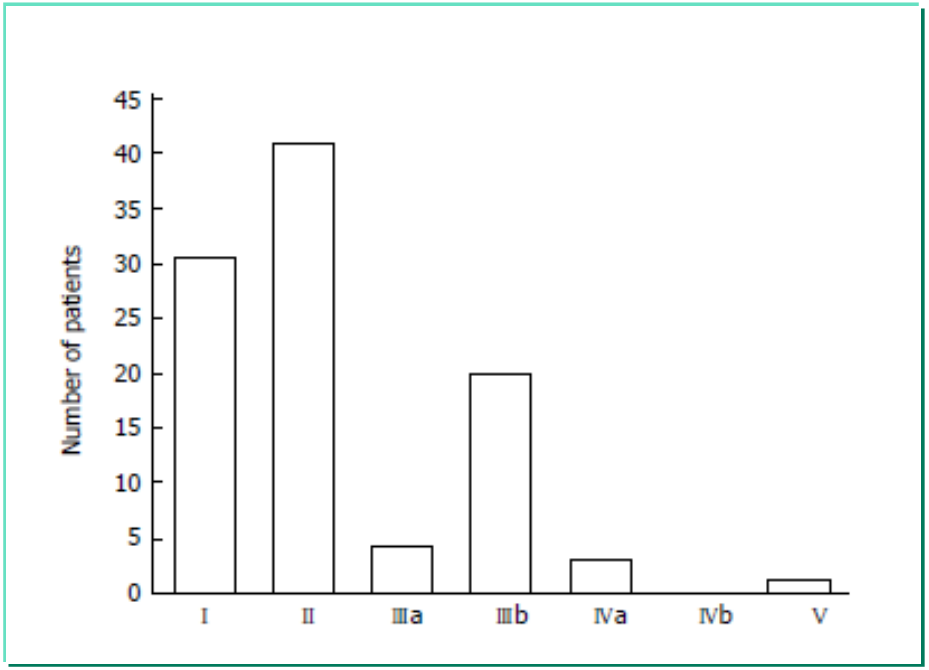
Anterior rectopexy for full-thickness rectal prolapse: Technical and functional results

Conversion rate	2.9%
Complications major	4.8 %
Mesh related	1.2 %
Recurrence rate	4.7 %
Improvement constipation	3-72 %
Worsening constipation	0-20 %
Improvement incontinence	31-84 %

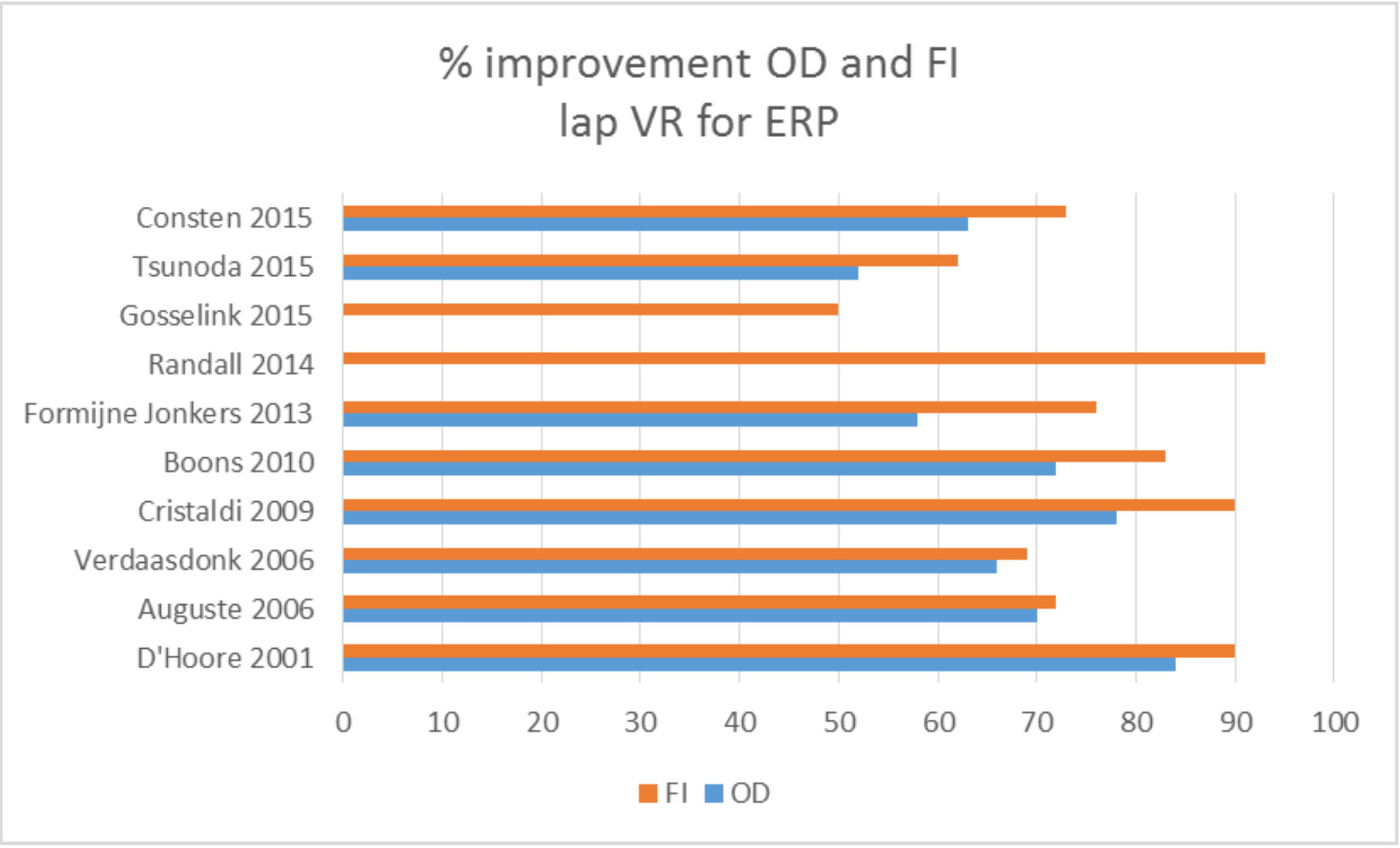
Faucheron J-L. et al, WJG 2015

Anterior rectopexy for full-thickness rectal prolapse: Technical and functional results





Faucheron J-L. et al, WJG 2015



Van Iersel JJ World J Gastroenterol 2016, review

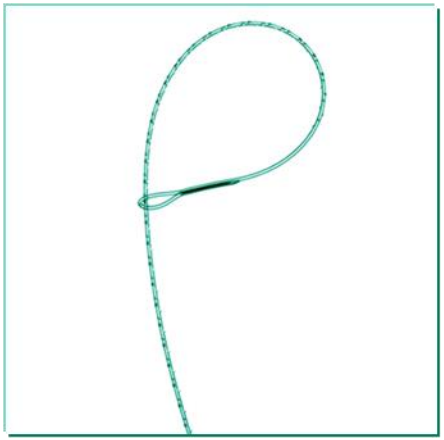
Anterior rectopexy for full-thickness rectal prolapse: Technical and functional results

Laparoscopic anterior rectopexy seems to emerge as an efficient procedure for the treatment of patients with total rectal prolapse.

Faucheron J-L. et al, WJG 2015

Are we burying our heads in the sand? Preventing small bowel obstruction from the V-loc suture in laparoscopic ventral rectopexy

S. Sakata, S. Kabir, D. Petersen, M. Doudle and A. R. L. Stevenson



Using clinical and experimental evidence, we demonstrate that bowel obstruction from the V-loc following laparoscopic ventral rectopexy will still occur despite the technical recommendations to bury or cut its barbed end flush.

Sakata S. et al, Colorectal Disease 2015

Are we burying our heads in the sand? Preventing small bowel obstruction from the V-loc suture in laparoscopic ventral rectopexy

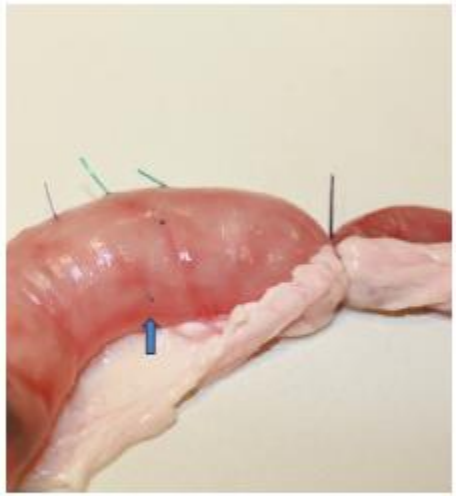


Figure 3 The V-loc® sutures were consistently expelled from the small bowel wall in the same direction. The blue arrow indicates the polypropylene suture tip with the majority of the suture in the bowel lumen.

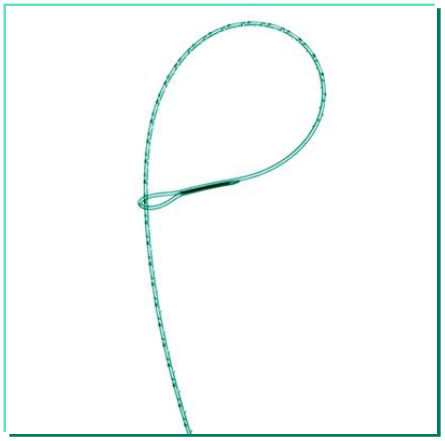
Figure 5 (a, b) Over 2 m of small bowel are able to be suspended under gravity for 30 min, using only 1 cm of direct contact between suture and snared mesentery.

Figure 4 Intra-operative photograph of small bowel obstruction caused by an exposed middle section of V-loc® from cheese-wiring through peritoneum. The surface area of small bowel involved was thus large.

Sakata S. et al, Colorectal Disease 2015

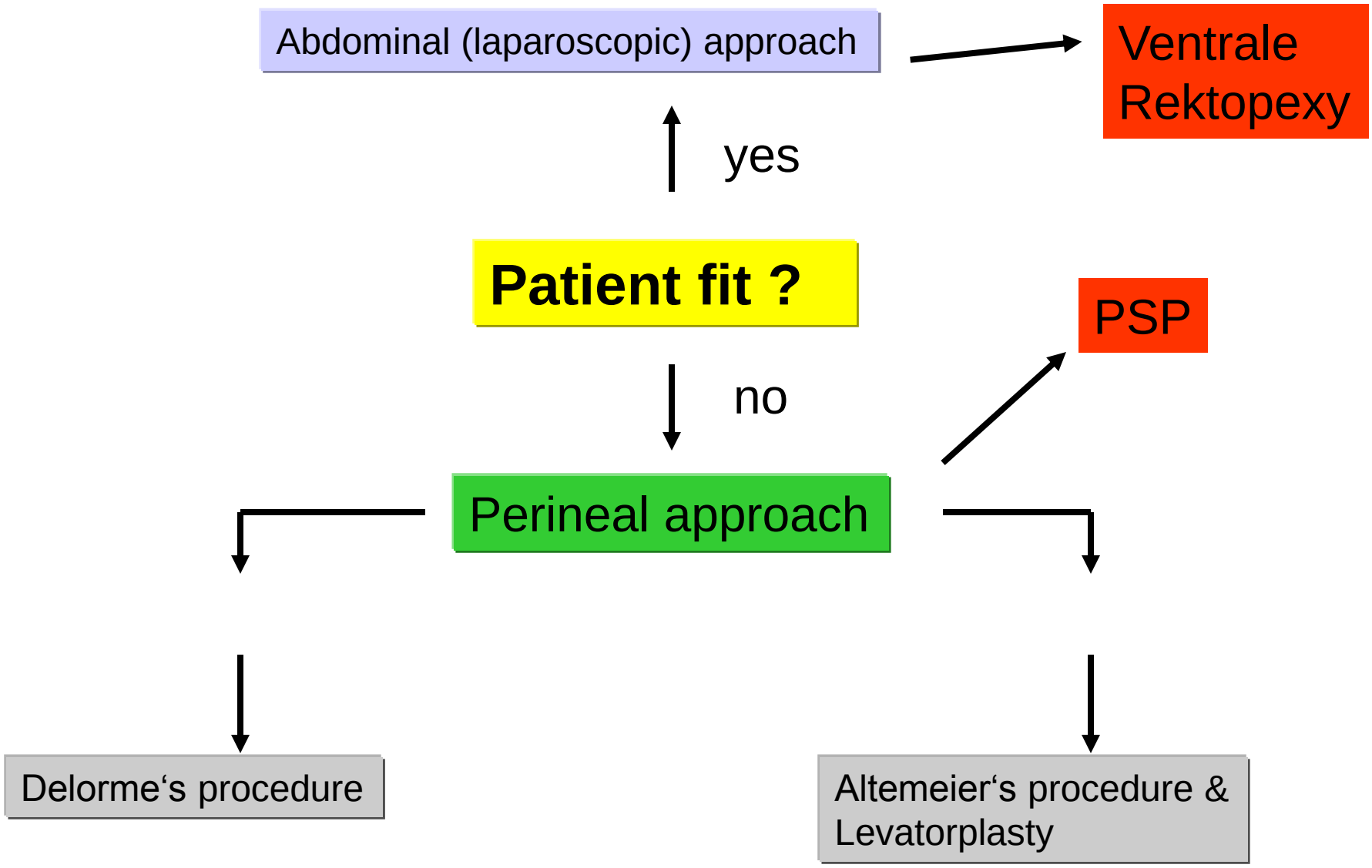
Are we burying our heads in the sand? Preventing small bowel obstruction from the V-loc suture in laparoscopic ventral rectopexy

The risk of bowel obstruction from the V-loc following laparoscopic ventral rectopexy is not negated by burying or cutting its barbed end flush. We have proposed its pathogenesis to refute commonly held assumptions about its prevention.



Sakata S. et al, Colorectal Disease 2015

Rectal Prolapse



Conclusion

Laparoscopic ventral recto(colpo)pexy reproducible and safe technique to correct rectal prolapse syndromes

restores anatomy

improves incontinence (90%)

improves rectal evacuation (70%-80%)