

**Center for Minimal Access
Surgery in Gynecology**

**Department of
Gynecology and Obstetrics**

**Hospital Sachsenhausen
Frankfurt
Academic Teaching Hospital
University of Frankfurt**



Complications of gynecological laparoscopic surgery

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**Hysterectomy Masterclass
ESI Hamburg 17th to 18th April 2013**



Complications

How to avoid them ...

**How to recognize them
as early as possible ...**

**How to treat them
adequately ...**



	Chapron (1998) n = 29.966	Härrki (1999) n = 32.205	AGE (2005) n = 75.584
Bowel	48 0,16%	24 0,07%	123 0,16%
Urogenital	39 0,13%	79 0,25%	93 0,12%
Bleeding	45 0,15%	4 0,01%	88 0,12%
Other	13 0,04%	23 0,07%	76 0,10%
Σ	139 0,49%	130 0,41%	436 0,58%

	Frankfurt (2011) n = 1414	Hessen 1998-2011 (Hessler 2012) n = 116.169
Bowel	3 0,21%	181 0,16%
Urogenital	6 0,42%	183 0,16%
Bleeding	1 0,07%	89 0,08%
Other	1 0,07%	361 0,30%
Σ	11 0,78%	814 0,70%



Cases of endoscopic surgery overall **23000**

Hysteroscopy **9500**

Myomectomy	1400
Endometrial Ablation	1050
Uterine septum	230
other	950

Laparoscopy **13500**

Myomectomy	3100
Adnexal surgery	3600
Total laparoscopic hysterectomy	2300
Subtotal laparoscopic hysterectomy	1050
major complications	< 2,0%
conversions to laparotomy	< 0,1%
Lymphonodectomy	250

Complication rate of 1,0% = 230 cases (20-25/year)



Complications

How to avoid them ...

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**The greatest complication is the
missing or wrong indication
for a surgical procedure**



Main reasons:

Boldness or audaciousness

Overestimation of one's own capabilities

False estimation of the situation

Lack of knowledge, skill and experience

Untrained team or unity

Insufficient or inadequate instruments



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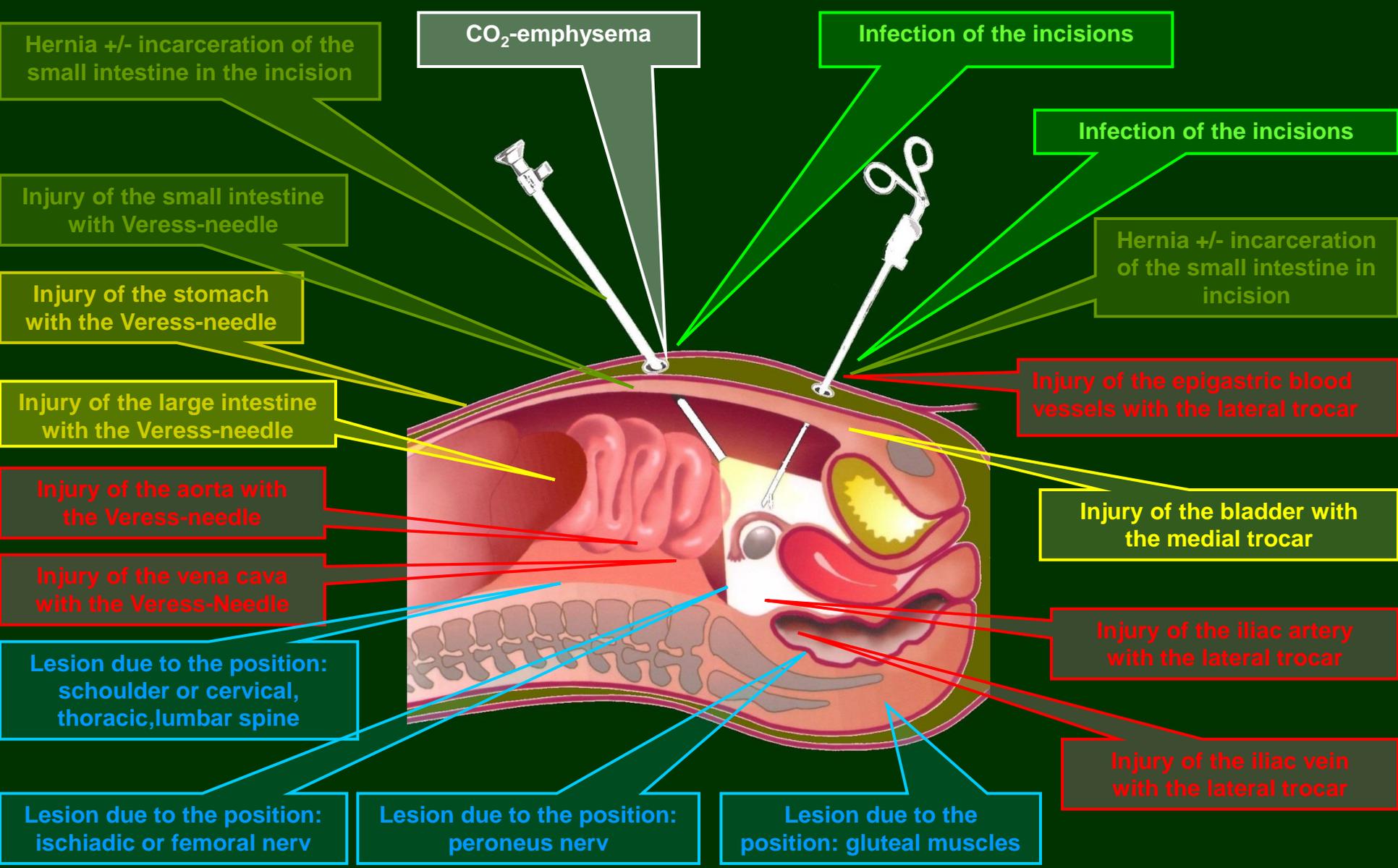
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Insufficient or inadequate instruments



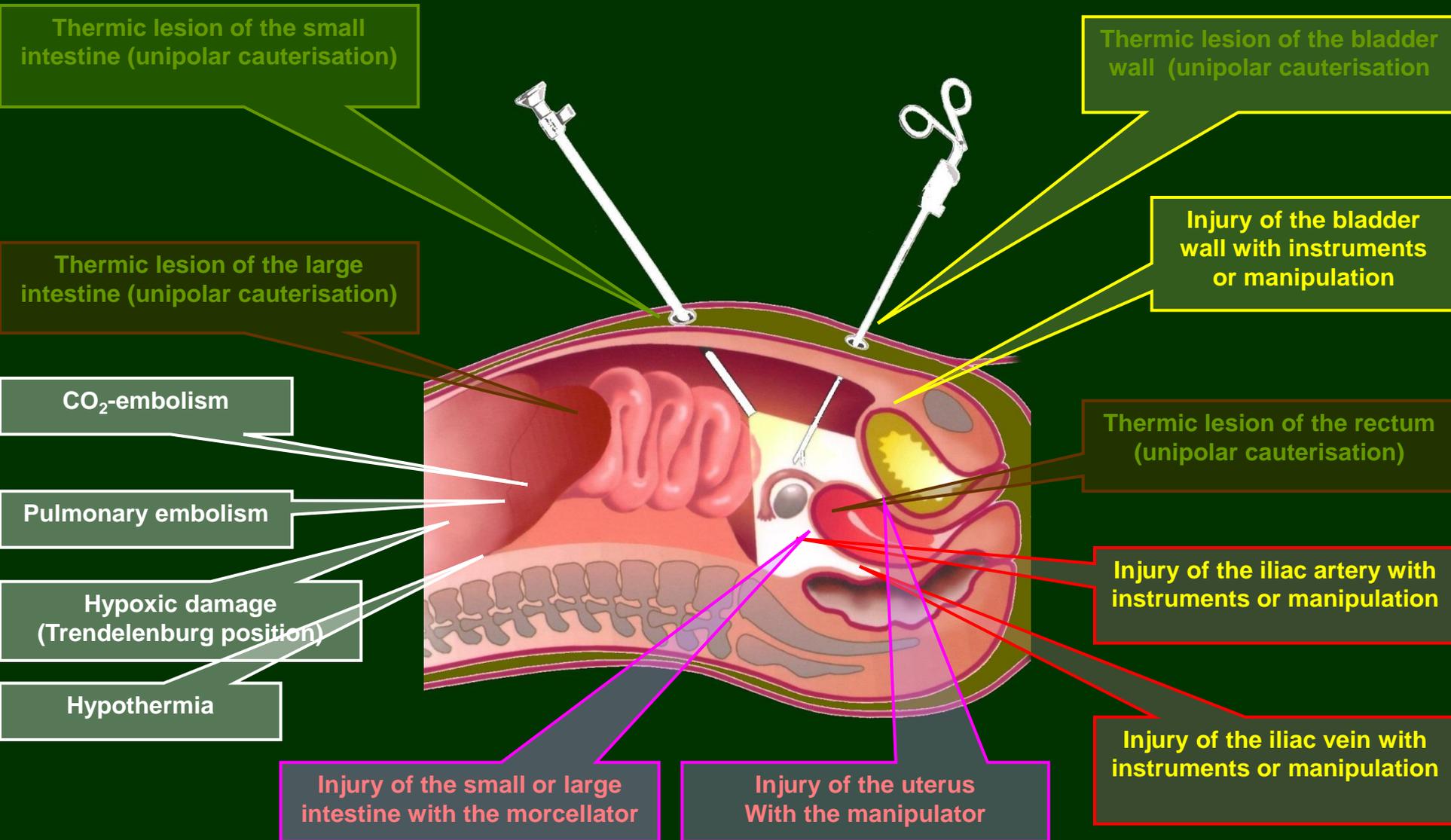
Complications:

... due to (minimal) access



Complications:

... due to the (laparoscopic) method



Complications:

... due to hysterectomy itself

Empyema of the vaginal vault
parametritis

Dehiscens of the vaginal vault

Ureterovaginal fistula

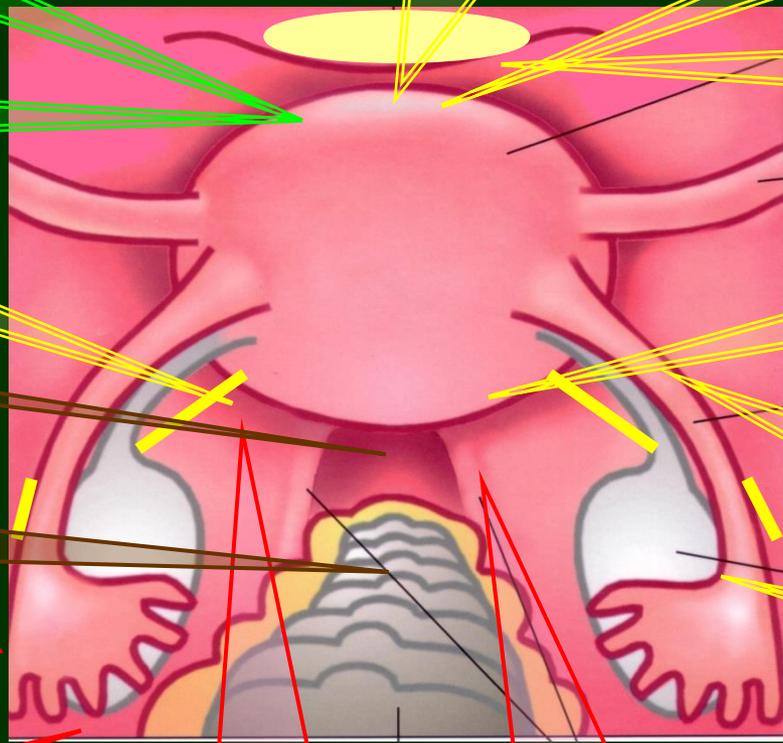
Rectovaginal fistula

Thermic lesion of the large
intestine (unipolar
cauterisation)

Retroperitoneal haematoma

Secondary hemorrhage
adnexal vessels

Vesicovaginal fistula



Thermic lesion of the bladder
bottom (unipolar cauterisation)

Prevesical thermic lesion of the
ureter (unipolar/bipolar
cauterisation, ultrasound)

Thermic or traumatic lesion of
the ureter (cauterisation or
sutures)

Thermic lesion of the ureter
(cauterisation, ultrasound) in
the fossa ovarica

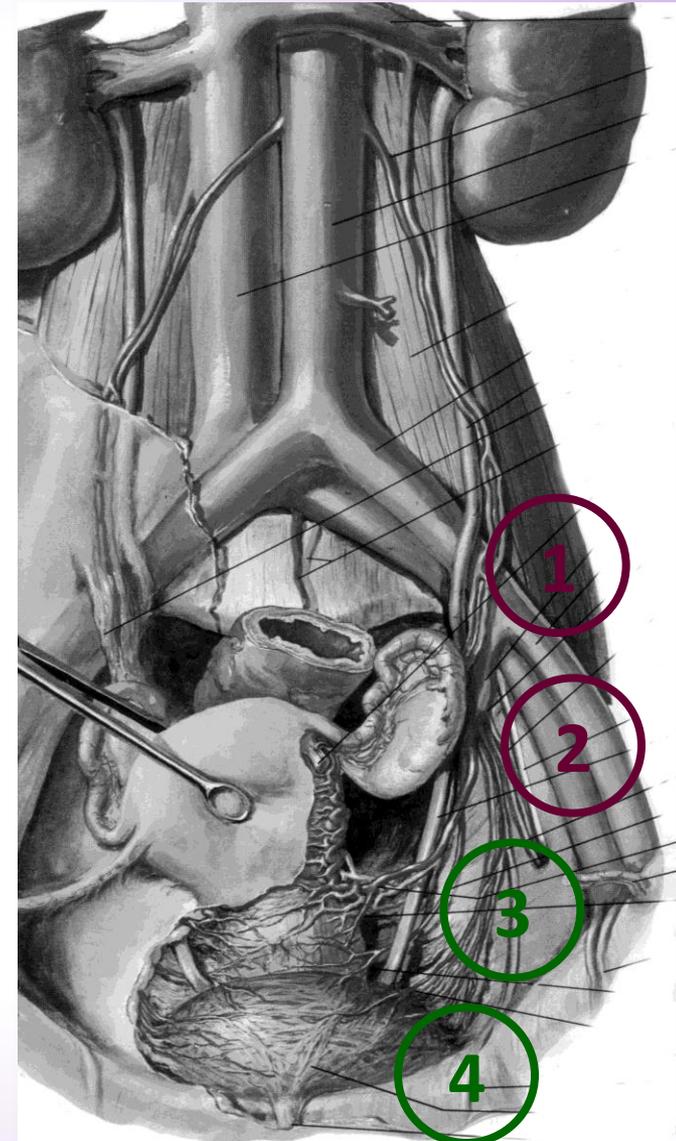
Thermic lesion of the ureter
(cauterisation, ultrasound) over
iliacal vessels

Secondary hemorrhage
Uterine vessels

Injury of iliac vessels with
the instruments

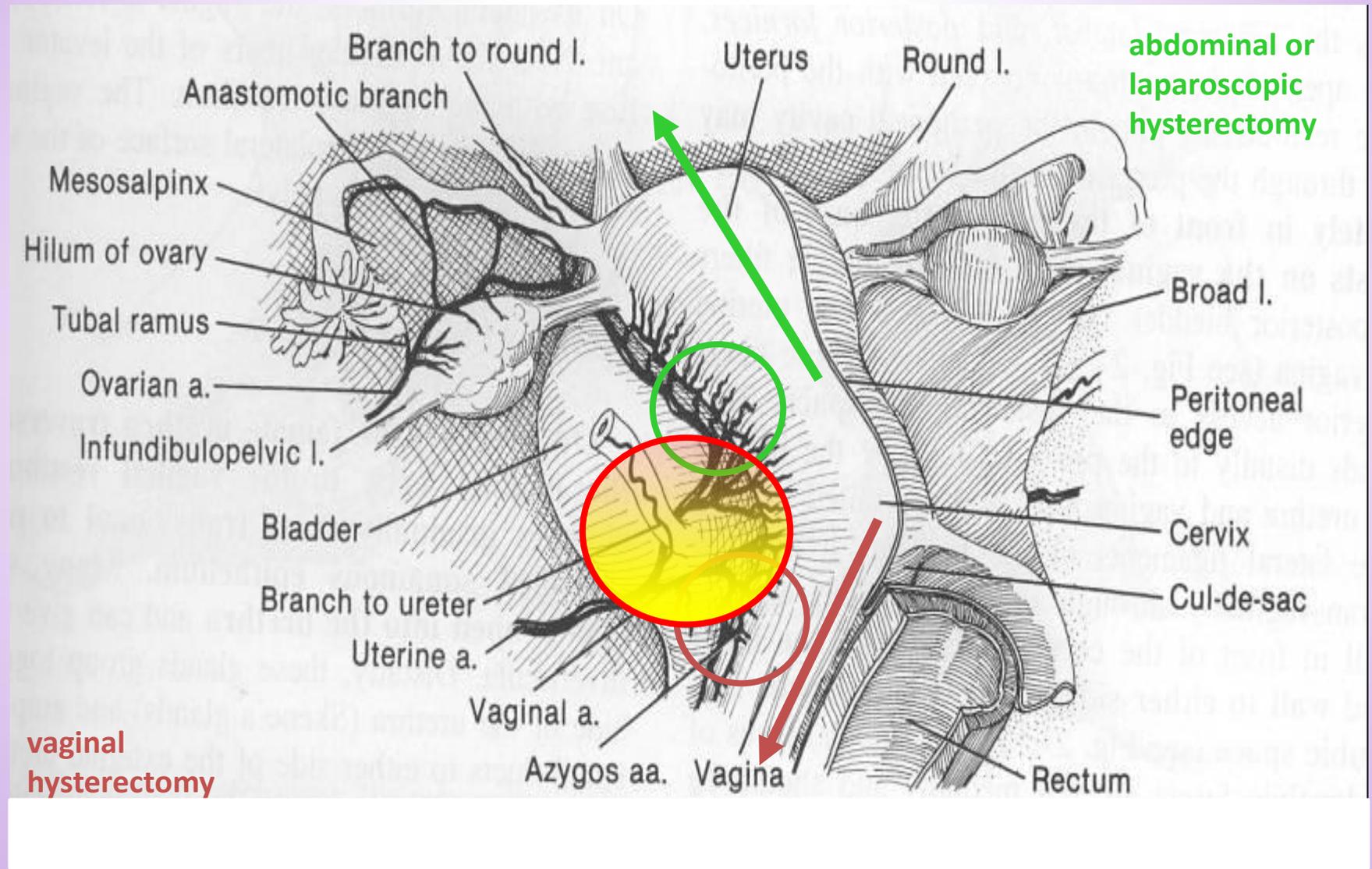


1. Crossing of the ureter with the ovarian vessels
 2. Fossa ovarica
 3. Crossing of the ureter with the uterine vessels
 4. Prevesical part of the ureter
1. + 2. Surgery on the adnexa (post hysterectomy), endometriosis, adnexal mass
3. + 4. Hysterectomy

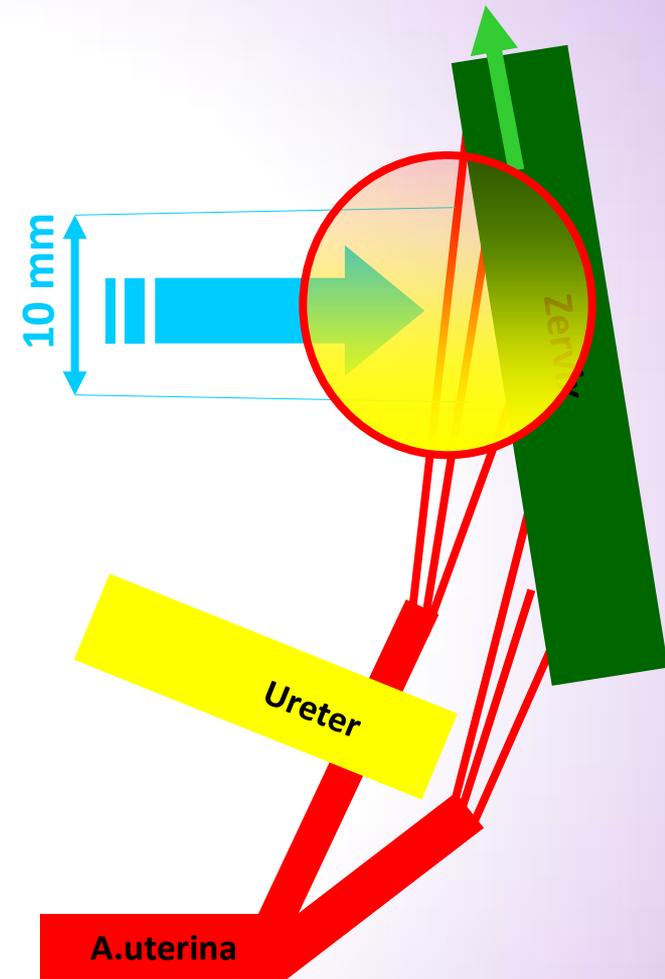
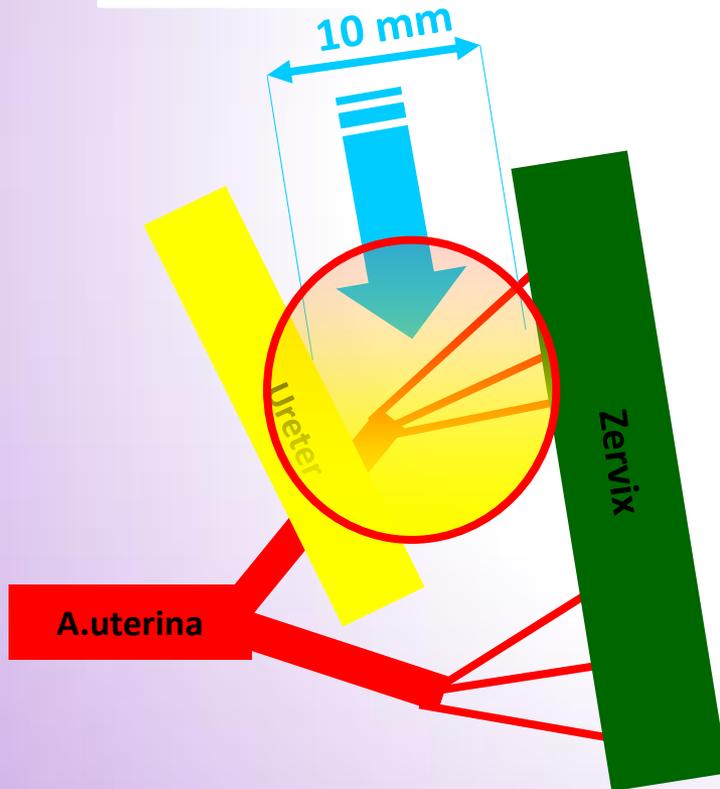
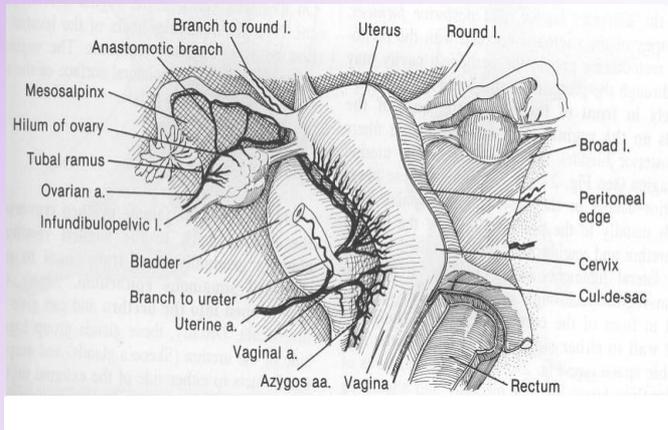


Injuries of the ureter:

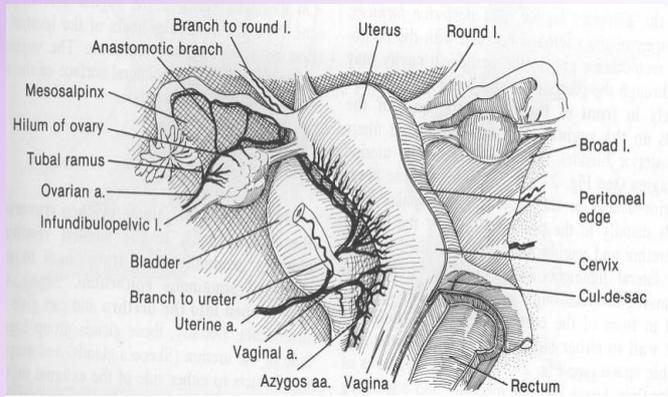
effect of traction on the uterus



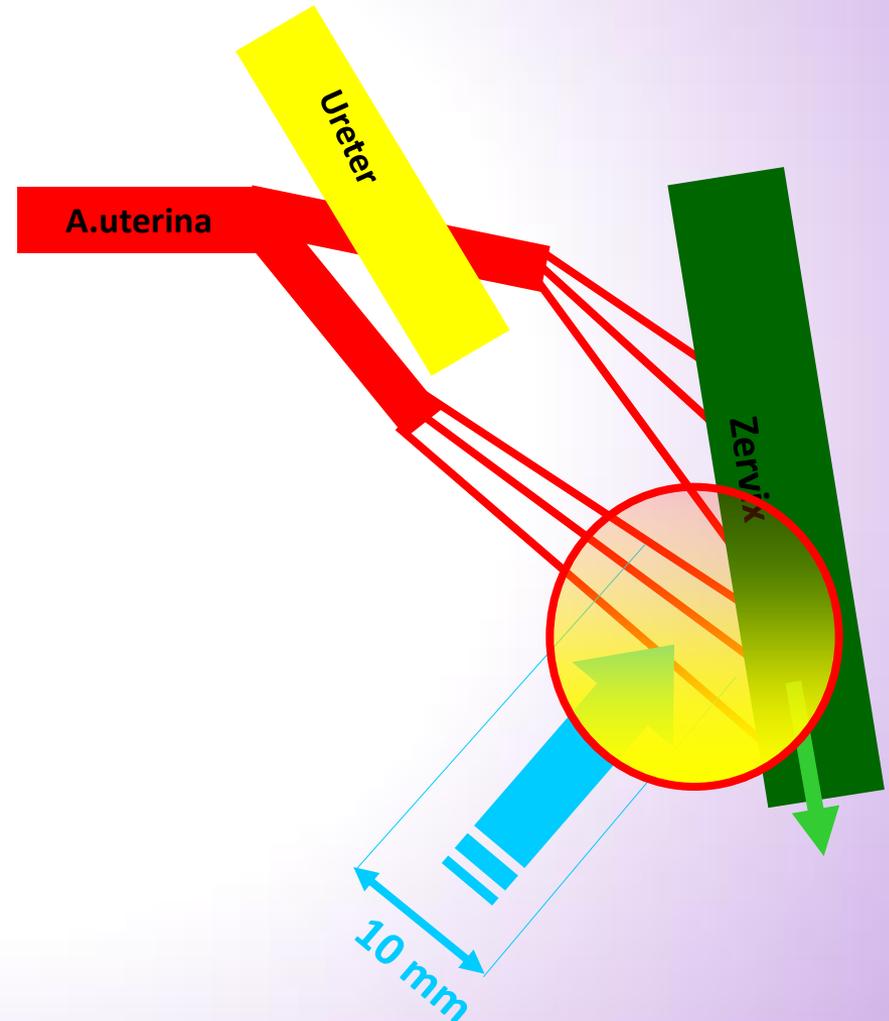
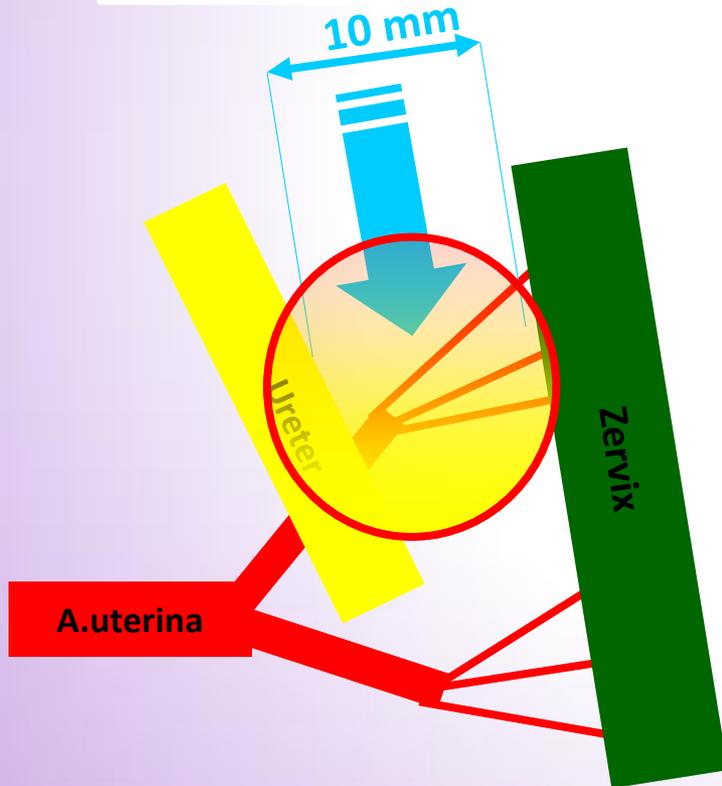
Injuries of the ureter: effect of the upwards uterus traction



Injuries of the ureter: effect of the downwards uterus traction

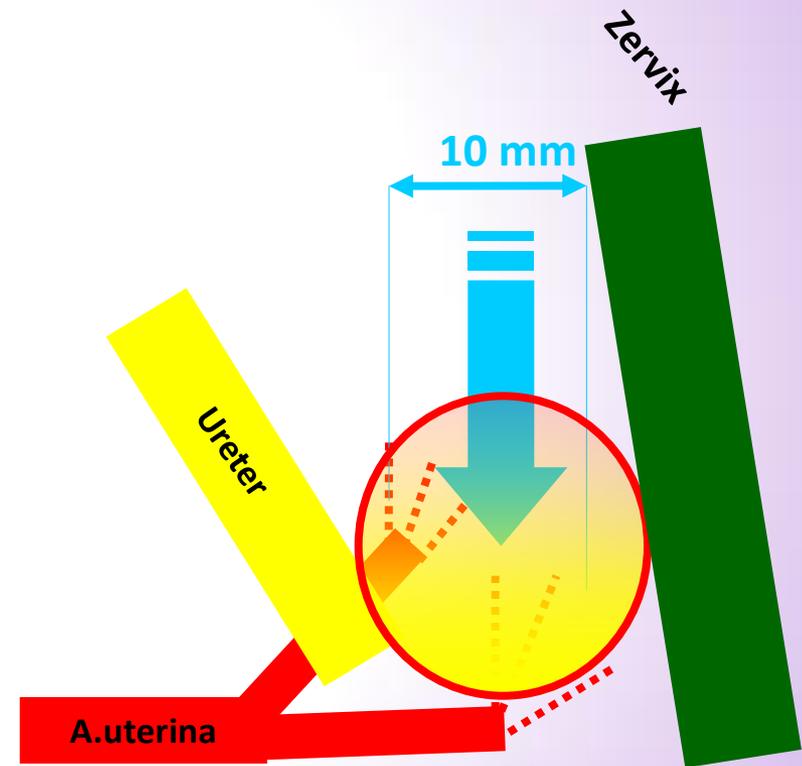
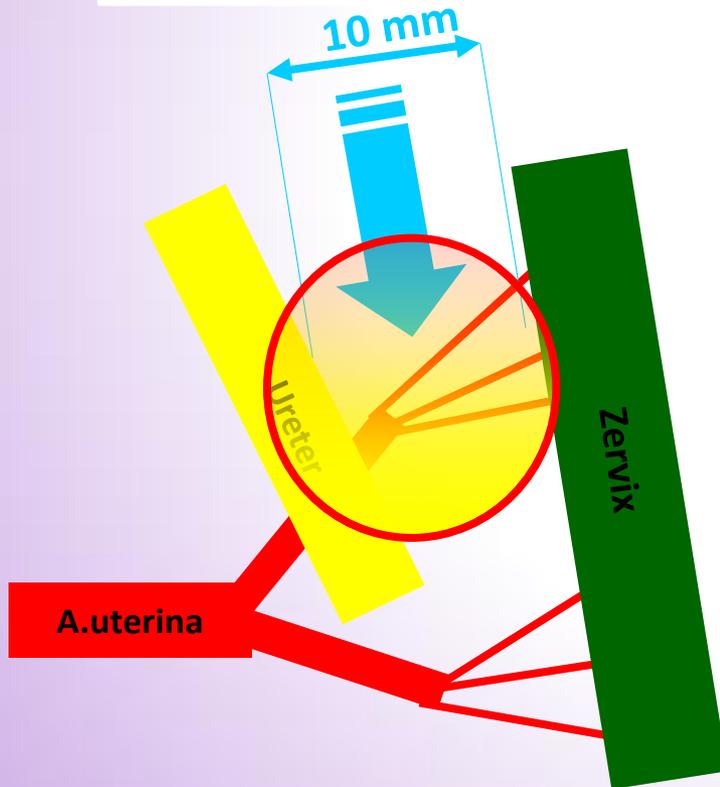
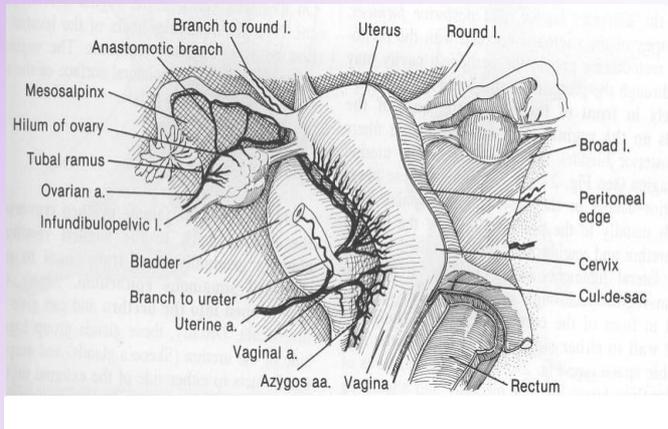


vaginal
hysterectomy



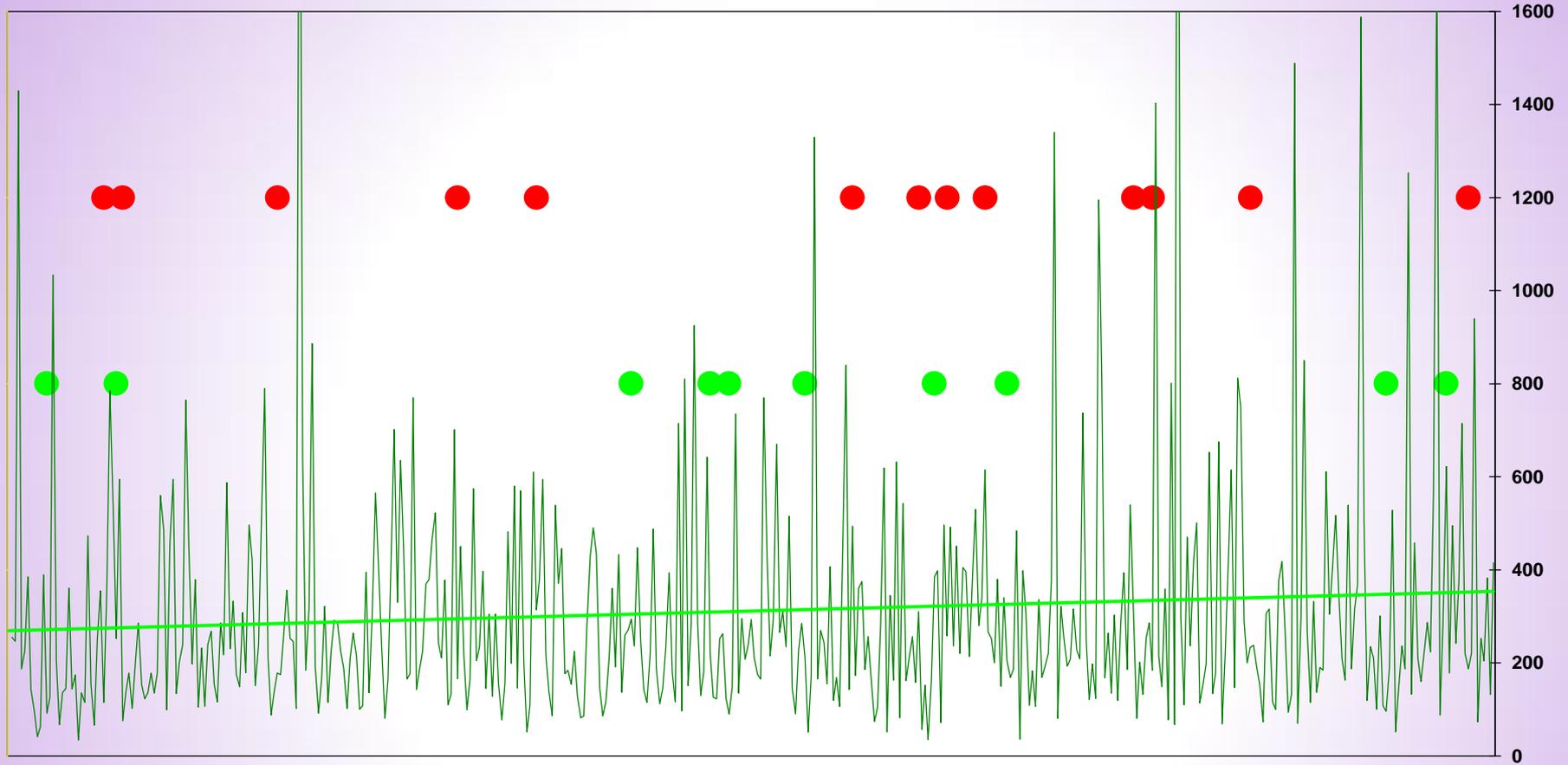
Injuries of the ureter:

effect of the failing uterus traction



Hazards of a (blind)
bipolar coagulation





Uterine weight (gramm)

n = 500

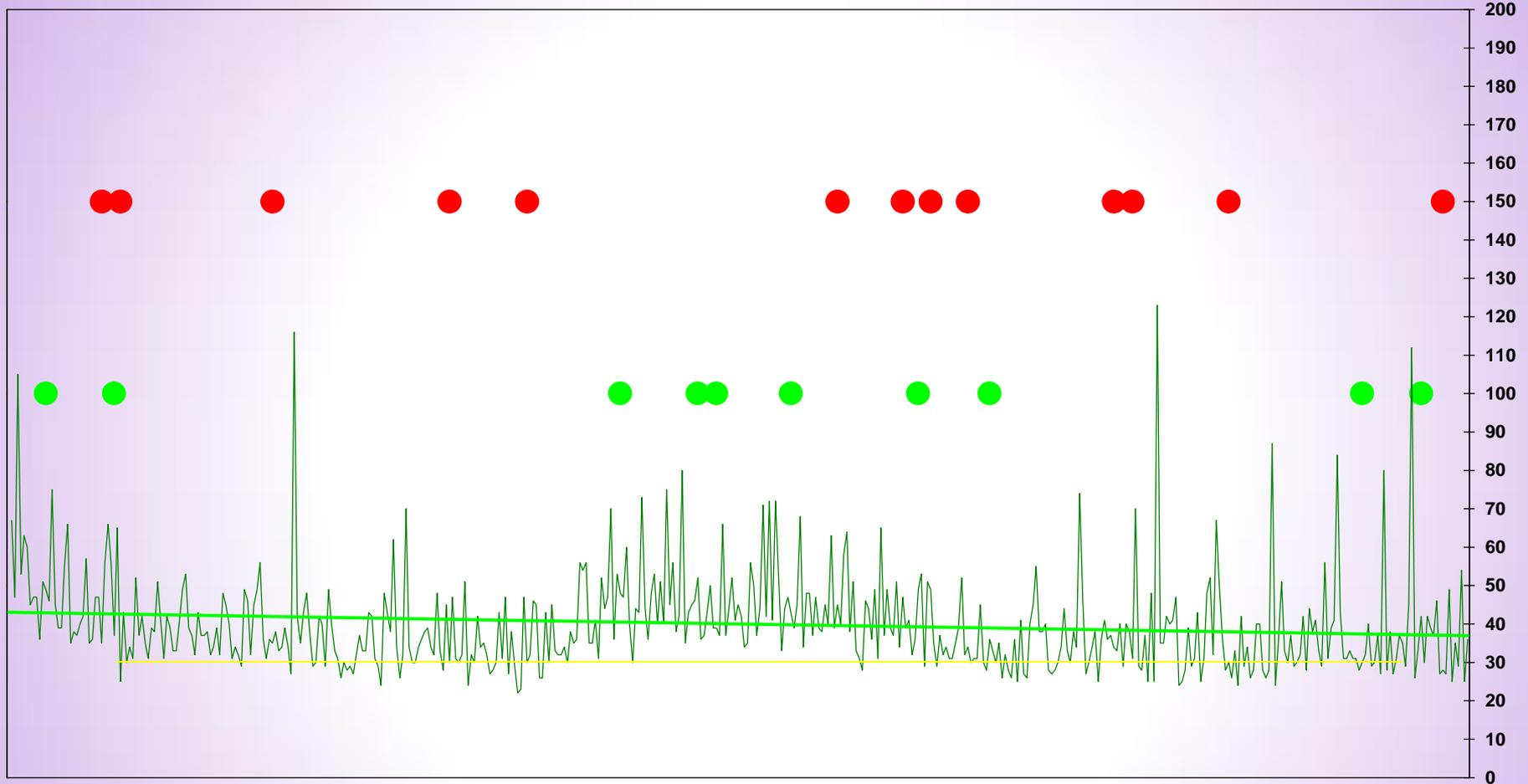
12/2006 – 5/2009



● major complications

● minor complications





Duration of surgery (min)

n = 500

12/2006 – 5/2009



● major complications

● minor complications



Bladder lesion
Vesicovaginal fistula
Ureterovaginal fistula
Stricture of ureter (vaginal vault)

Re-operation 2 days later (laparoscopy), bladder catheter 7 days
Re-operation 9 days later (laparoscopy), bladder catheter 10 days
Conservative treatment 17 days later (pigtail)
Re-operation 4 days later (laparoscopy) decompression

Prevesical hematoma
Prevesical hematoma
Abdominal wall hematoma (trocar)
Hemorrhage

Re-operation 2 days later (laparoscopy)
Re-operation 2 days later (laparoscopy) + 2x blood transfusion
Re-operation 3 days later
Re-operation 1 day later (laparoscopy)

Tubo ovarian abscess
Adhesions with pain
Abscess vaginal vault
Purulent peritonitis (Salmonella)

Re-operation 17 days later (laparoscopy)
Re-operation 7 weeks later (laparoscopy – adhesiolysis)
Re-operation 7 days later (laparoscopy – appendectomy)
Re-operation 2 days later (laparotomy) no bowel lesion

Dehiscence vaginal vault
Vaginal tear
Vaginal tear

Re-operation 3 Weeks later
Re-operation 2 hours later
Re-operation 1 day later + 3x blood transfusion



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Drainage

... as many and
... as big as necessary



URINE

BLOOD

Secretion
(small intestine)

Faeces
(large intestine)



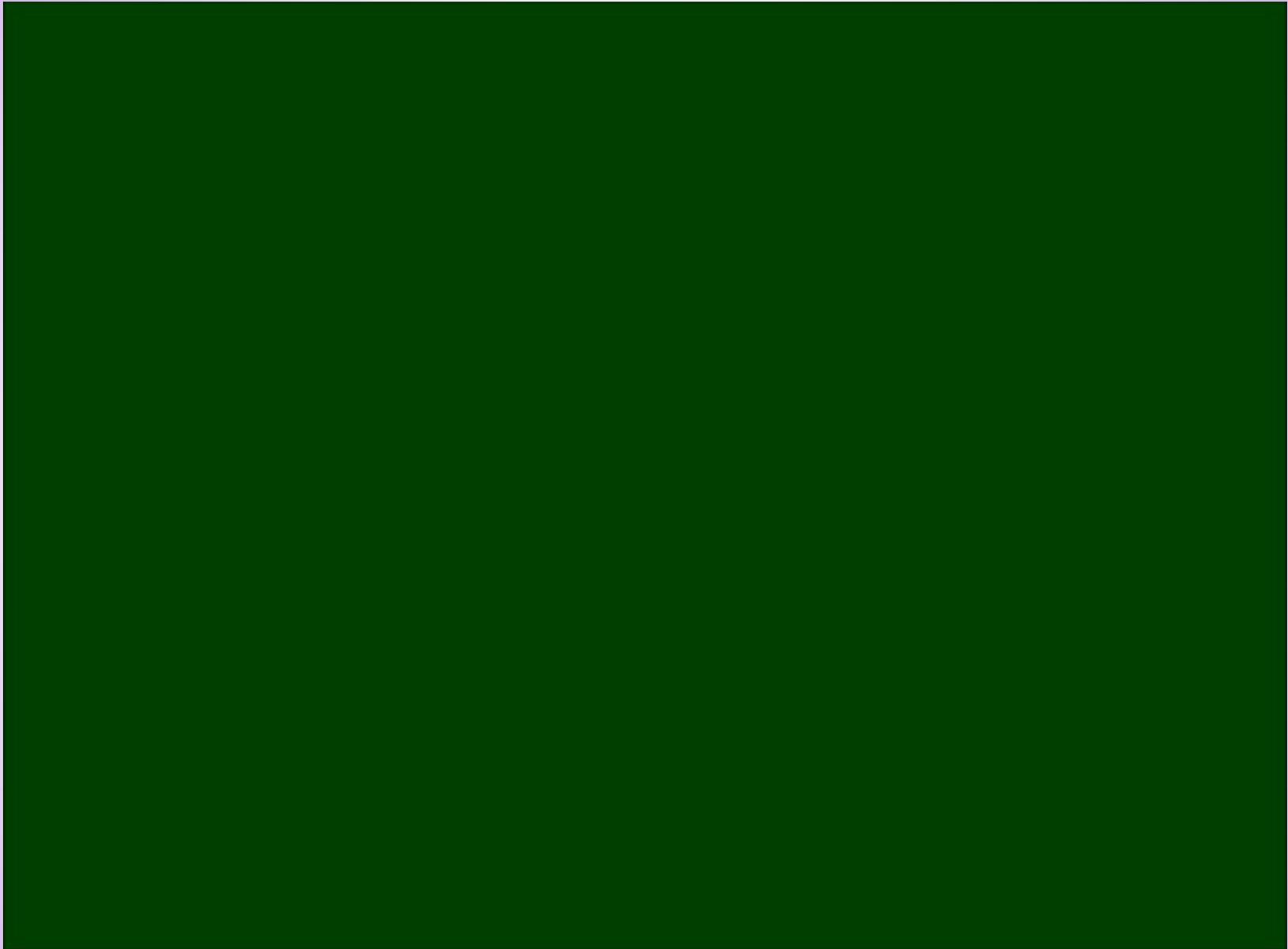
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How Cars are Recovered in Ireland

The Murphy's Law Story

Or

*How to Compound a
Catastrophe*



"Hey Paddy, we've got dis here car ta pull out."



"Shamus, we're pullin' it up now."



*"Here Paddy, what happens if da crane can't hold it?"
"Shamus me lad, don't you even tink about dat happening."*



"Hoy Paddy, oi didn't even tink it, oh shoit!"



*"Shamus, moi boy, go get a bigga crane."
"Alroight, Paddy."*



"Ah Shamus, dis bigga crane is doin' da job well."



"Dat it is Paddy, dat it is."



"Now for da first crane Shamus, up it cooms."



" What's happening Paddy, what's happening."



"Oh f#k Shamus, we've got ta get an even bigga crane!"*

The end

**Thank you
for your
attention !**

