

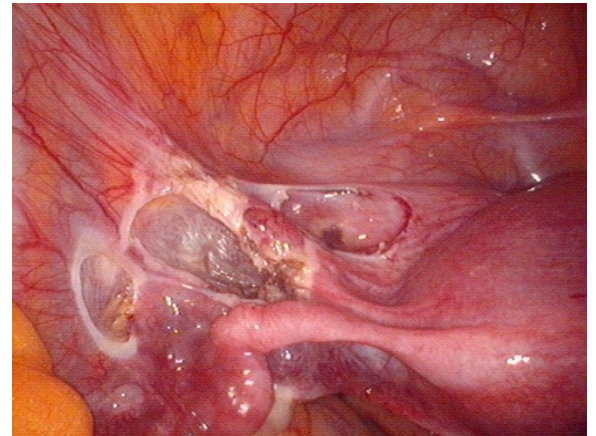
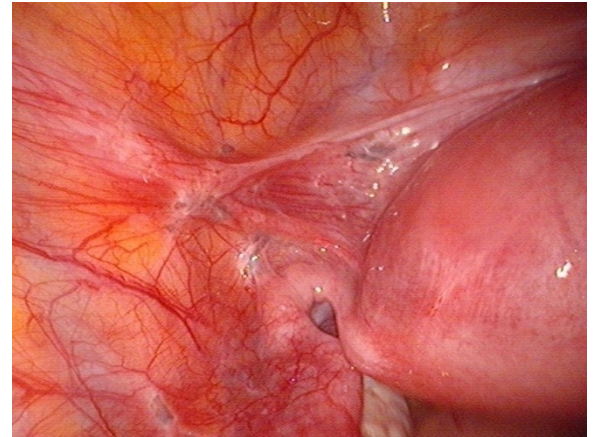
# Surgical management of peritoneal endometriosis

GKS koulutuspäivät

24.9.2009

Jaana Fraser

PKSSK

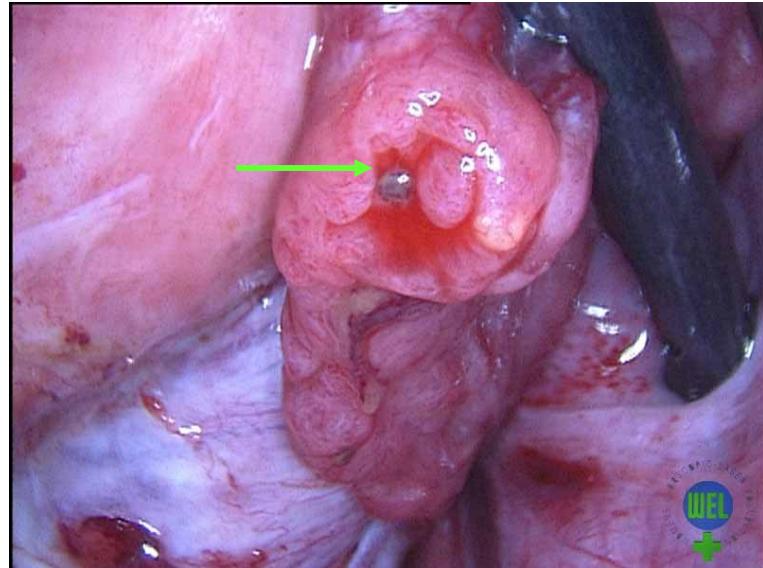
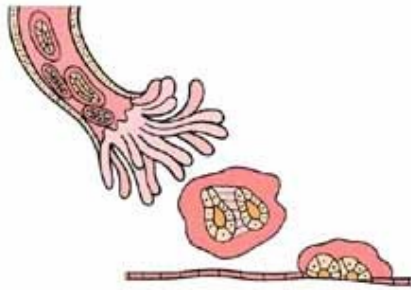


# Peritoneal endometriosis

- Tumor-like small lesions, located on the surface of peritoneum
- Diameter some millimeters
- One or multiple
- Anywhere in the abdominal cavity
- Most often near uterus
- Tissue resembles endometrium

# Pathogenesis

- Retrograde menstruation



# Red → Black → White

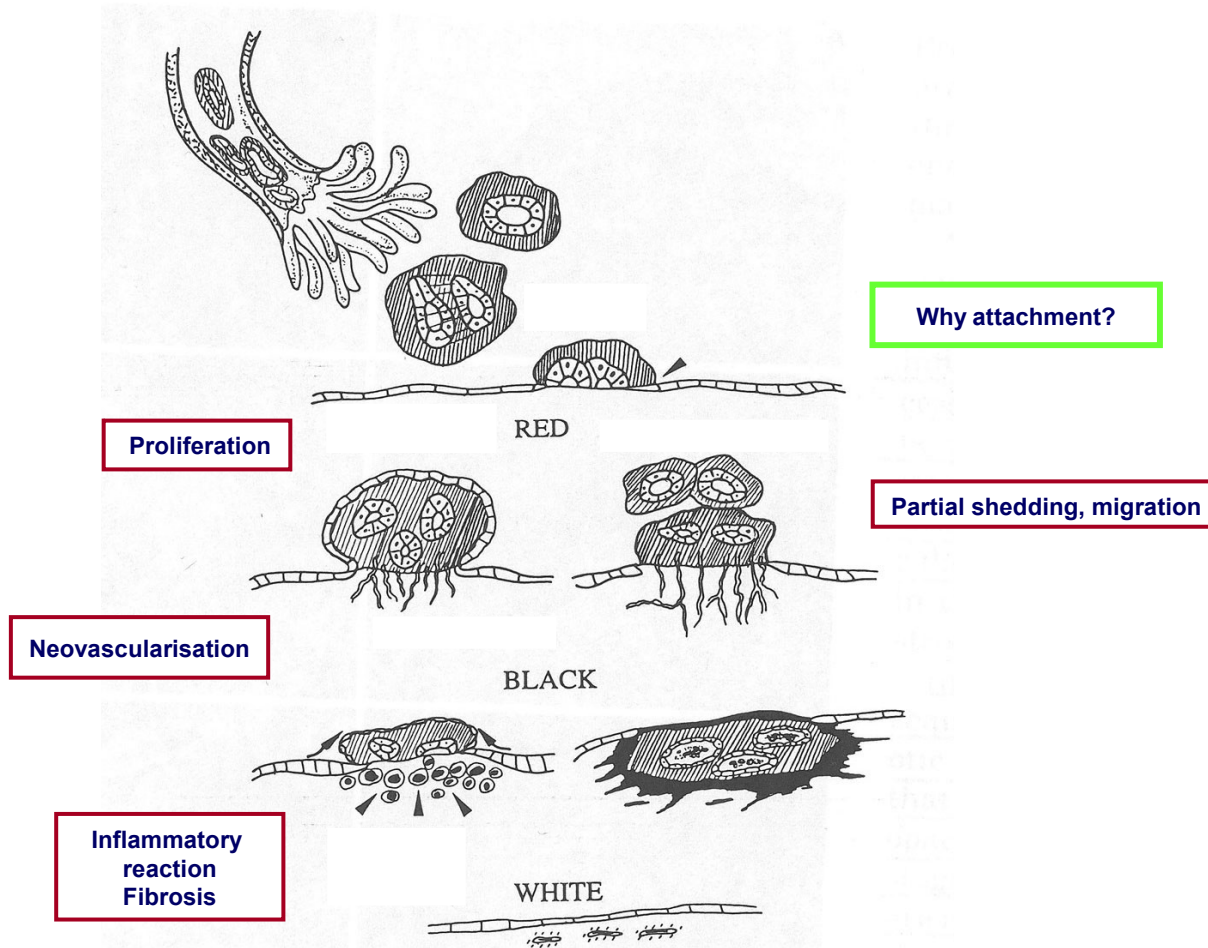
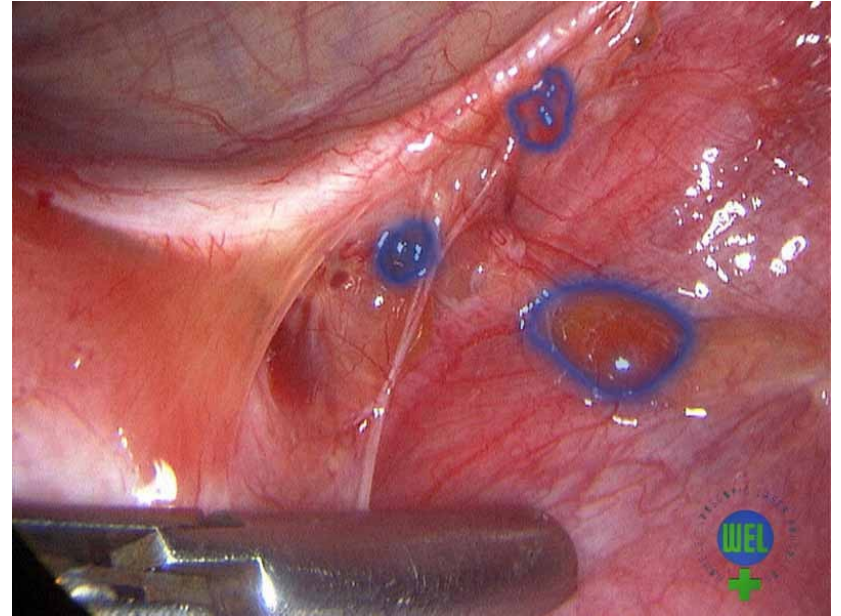
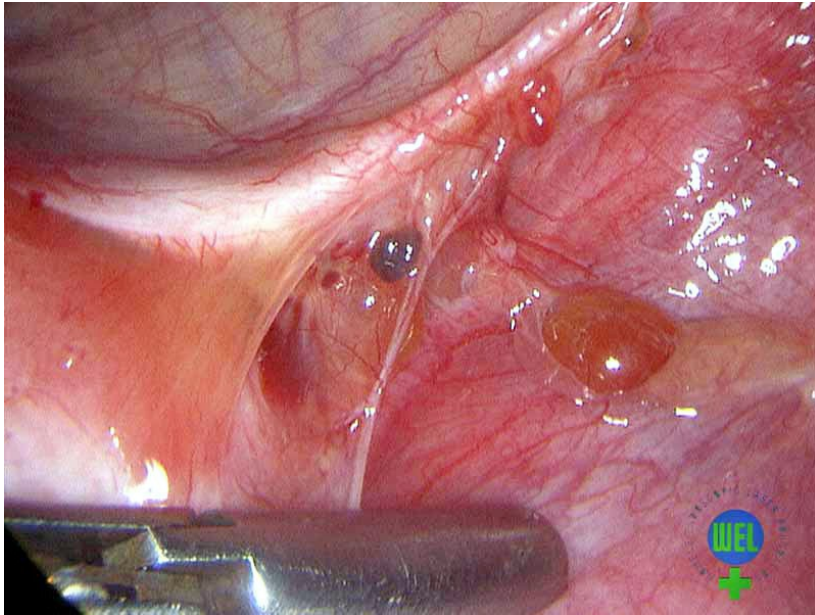


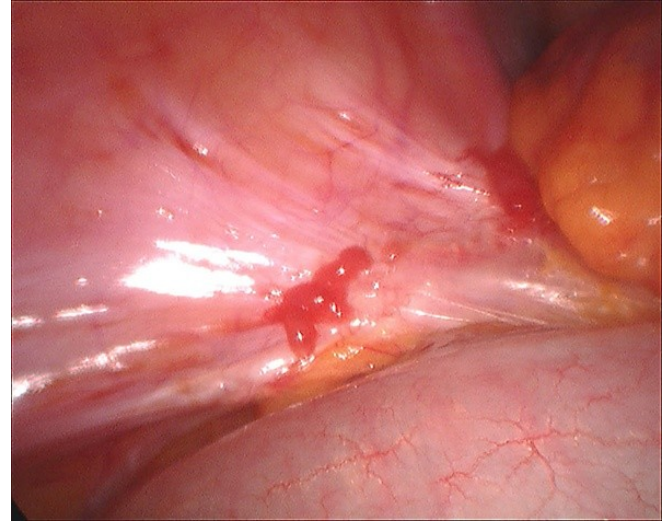
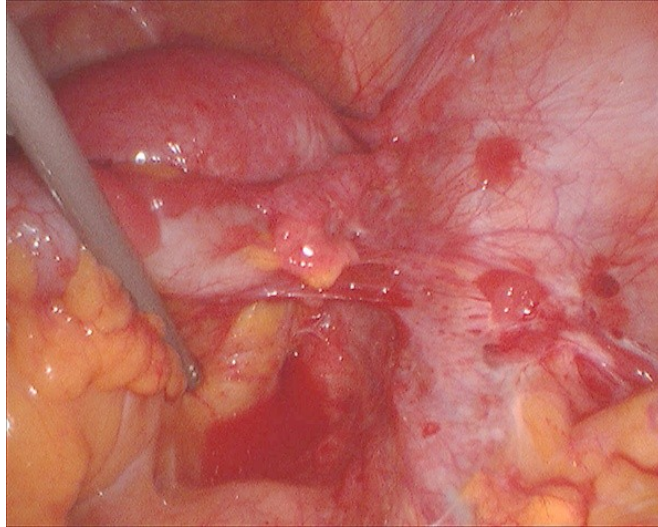
Figure 1 Hypothesis of the evolution of peritoneal endometriosis.

Nisolle et Donnez, Fertil Steril 1997

# Red



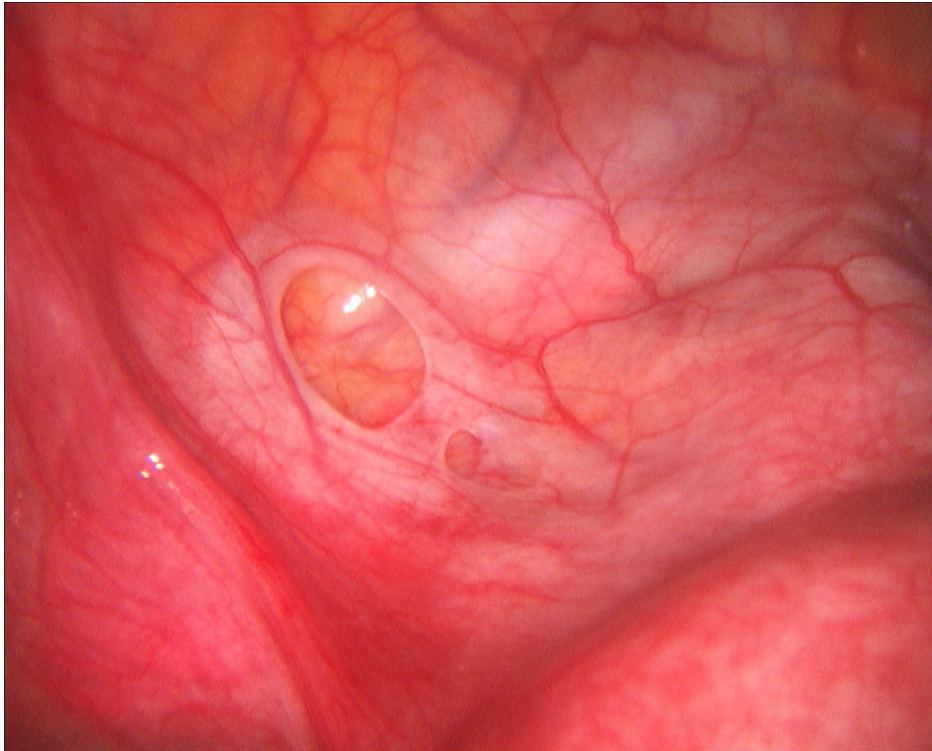
Red



# Black and white



# Peritoneal defect





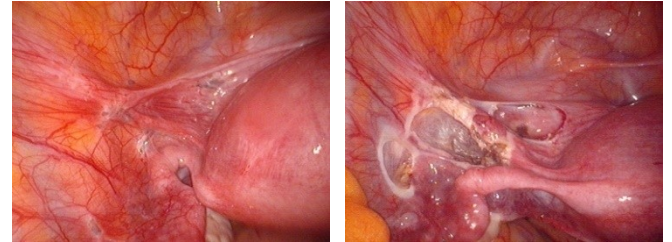
# Surgery - ablation

- Lesions are destroyed using monopolar or bipolar diathermy
- Nowadays also laser or ultrasound

# Surgery - ablation



# Surgery - excision



- Lesions are totally removed with (monopolar) scissors or ultrasound scissors
- Peritoneum is grasped, dissected from underlying structures, and excised with surrounding healthy tissue

# Surgery – excision small lesion



# Surgery – excision, large areas



# Comparison of the techniques

## Advantages

### ELECTRO- COAGULATION

- Fast
- Easy

### EXCISION

- Complete removal
- Specimen for histology

# Comparison of the techniques

## Disadvantages

### ELECTRO-COAGULATION

- Potentially incomplete removal
- No specimen for histology
- Possible thermal damage to the underlying structures
- Necrotic tissue left behind with a potential for greater inflammatory reaction

### EXCISION

- Slower
- Longer learning curve
- Possible damage to the underlying structures
- Momentary loss of large areas of peritoneum

# Effectiveness of surgery for endometriosis in general

## Pain

- Laser ablation

statistically significant pain relief compared with diagnostic laparoscopy at 6 months after surgery.

Stages I-III. RCT.

Sutton et al 1994

- Laparoscopic excision of all endometriosis

significantly reduces pain and improves quality of life (all stages).

Randomized, blinded, crossover study

Abbott et al. 2004

significantly reduces pain and improves quality of life in 2 – 5 years follow-up (all stages).

Prospective observational cohort study.

Abbot et al 2003



# Effectiveness of surgery for peritoneal lesions

## Pain

- Laser ablation versus diagnostic laparoscopy RCT: outcome was poorest for minimal endometriosis

Sutton et al 1994

- RCT comparing changes in pain symptoms 6 month after surgery

Wright et al 2005

12 patients excision  
12 patients electrocoagulation

Statistically significant change in pain  
with both treatments

- Patients with peritoneal lesions and pain probably benefit from surgery

# Effectiveness of surgery for peritoneal lesions

## Infertility

- Two RCTs: excision/electrocoagulation versus diagnostic laparoscopy

Marcoux et al.1997, Parazzini et al 1999

- Pooling the data of the two RCTs:

Vercellini et al 2009

OR of conception 1.65 (95% CI, 1.06 – 2.58)  
statistically significant difference of marginal clinical importance

Experimental pregnancy rate  
26% in operated group  
18% in control group

NNT 12

- The benefit of surgery for patients with peritoneal lesions and infertility, is probably limited
- If surgery is chosen as a method of treatment, peritoneal lesions should be excised or destroyed

# Excision or ablation?

- At present, techniques using excision are the most commonly reported methods of surgical treatment of endometriosis
- Laparoscopic excision of all forms of endometriosis can be considered the "gold standard" of endometriosis surgery

Garry 2004

# Excision or ablation for peritoneal lesions?

- RCT comparing excision and electrocoagulation in the treatment of peritoneal disease

No significant difference in change of pain symptoms  
between two procedures  
No difference in morbidity

Wright et al 2005

- Ongoing study in Australia, M Healy et al. :

RCT comparing laparoscopic excision and ablation.  
180 patients  
Five years follow-up.

Results 2012?

# In clinical practise

- Excision  
Black and white lesions
- Electrocoagulation or ultrasound is usually used  
Red lesions

In areas that do not have loose peritoneum:  
uterus, ovary, diaphragm

# Conclusions

- All types of peritoneal lesions should be recognized
- Patients with peritoneal lesions and pain probably benefit from surgery
- The benefit of surgery for patients with peritoneal lesions and infertility, is probably limited
- If surgery is chosen as a treatment method, all endometriotic lesions, also peritoneal lesions, should be excised or destroyed

- Special thanks to Marja-Leena Setälä for photo and video material in this presentation
- Kiitos