

Diagnostic Laparoscopy



Electronic Eye Inside Abdomen

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Essentials of Laparoscopic Surgery



Definition



- Diagnostic laparoscopy is a minimal access surgical procedure that allows the visual examination and documentation of intra abdominal organs in order to detect pathology.



Importance

- The Image of the liver, stomach, intestines, gallbladder, spleen, peritoneum, and pelvic organs can be viewed.
- Manipulation and biopsy of the viscera is possible by introducing forceps through additional ports.



History

- Diagnostic laparoscopy was first introduced in 1901 by **Kelling**, He performed it on dog.
- A Swedish internist named **Jacobaeusc** is credited with performing the first diagnostic laparoscopy on human in 1910 for ascitis.



Kelling 1901



Indication

Non-traumatic, non-gynaecologic acute abdomen like:

- ☐ Appendicitis
- ☐ Diverticulitis
- ☐ Duodenal perforation
- ☐ Mesenteric adenitis.
- ☐ Intestinal adhesion
- ☐ Omental necrosis.
- ☐ Intestinal infarction.
- ☐ Complicated Meckel's diverticulum.
- ☐ Bedside Laparoscopy in the ICU.
- ☐ Torsion of intra-abdominal testis.



Indications

Gynaecological abdominal emergencies like:

- ❑ Ovarian cysts.
- ❑ Pelvic inflammatory diseases.
- ❑ Acute salpingitis.
- ❑ Ectopic pregnancy.
- ❑ Endometriosis.
- ❑ Perforated uterus due to criminal abortion
- ❑ Salpingitis
- ❑ **Abdominal trauma:**



Anaesthesia



Lignocain injection over inferior crease of umbilicus



Position Of Surgical Team



Surgeon stand left to the patient and camera person
right to the surgeon



Port position and Surgical team

- Diagnostic Laparoscopy should always be performed by two ports technique
- Surgeon should hold camera and instrument himself to perform Diagnostic Laparoscopy
- Ideally the working port should be in left iliac fossa

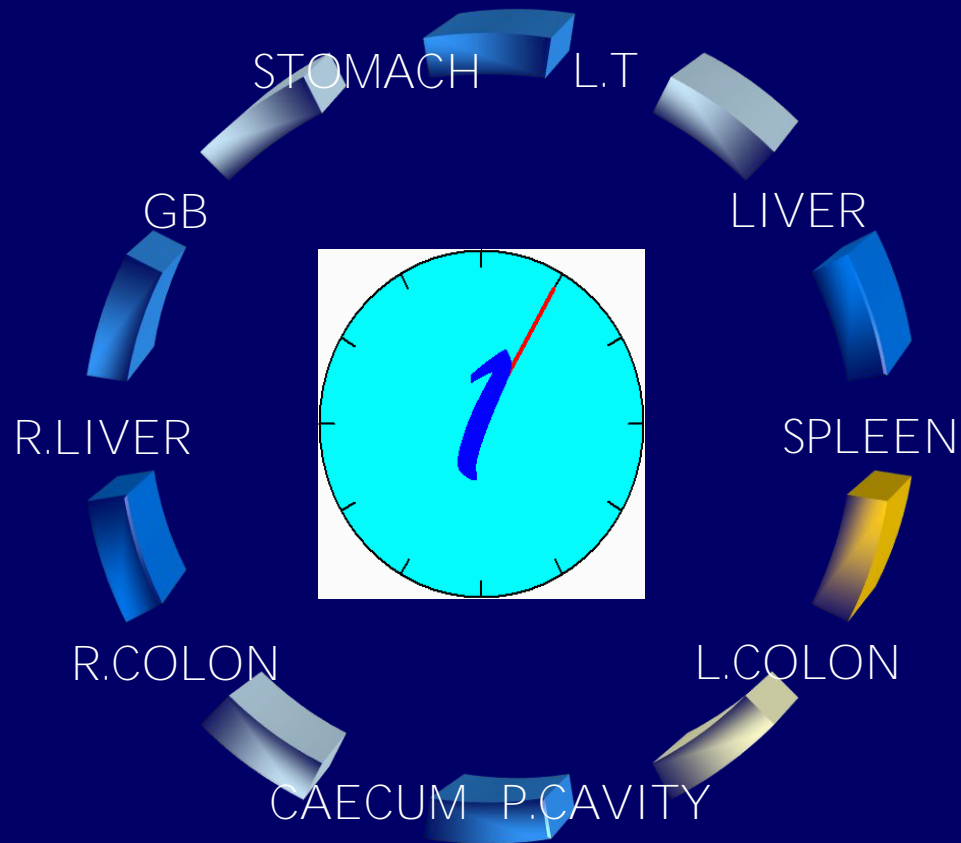




Port Position

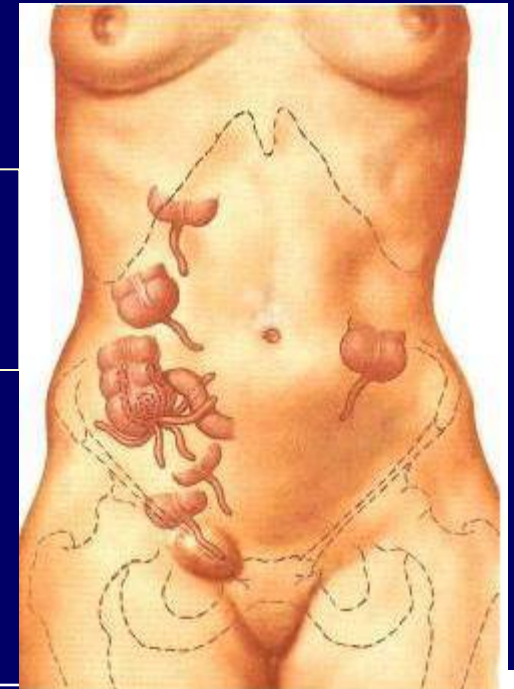
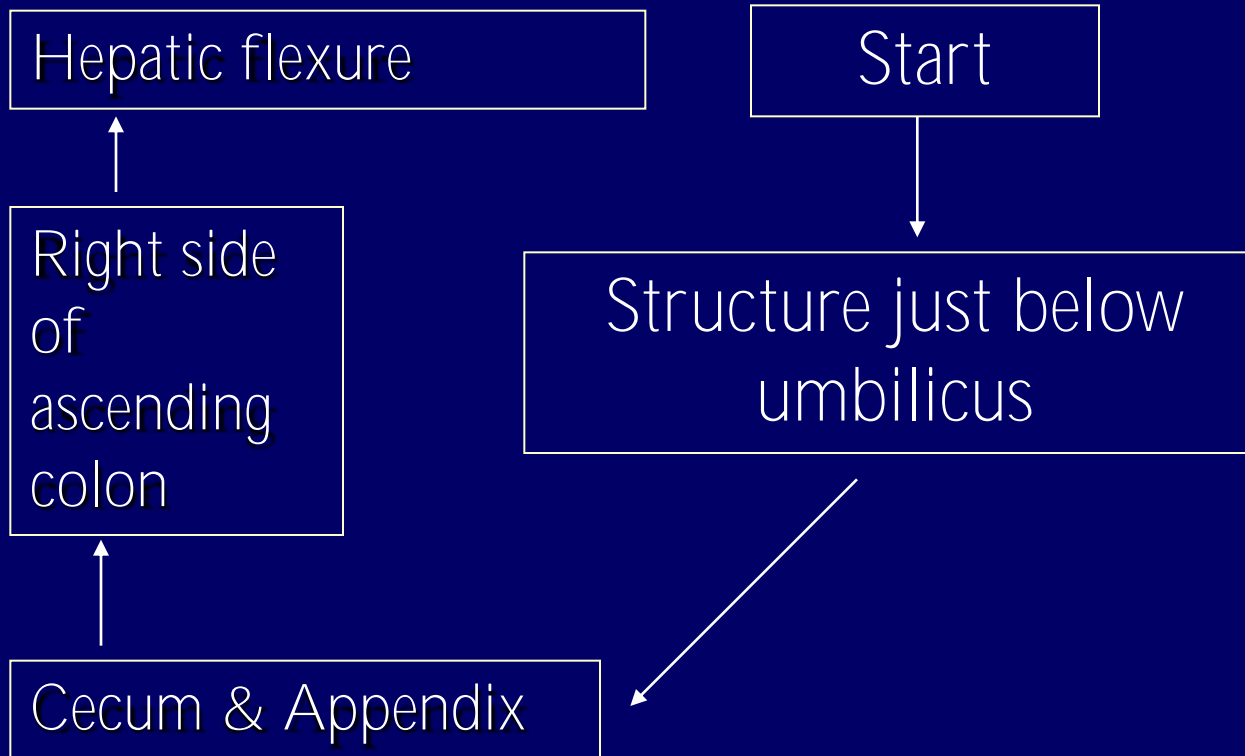


Systemic plan



Systemic plan of inspection

□ Patient in steep trendelenberg position



Systemic plan of inspection

□ Reverse the Trendelenberg tilt

Right lobe of the liver and gall bladder

Telescope should then be withdrawn a little to cross falciform ligament

Transverse colon

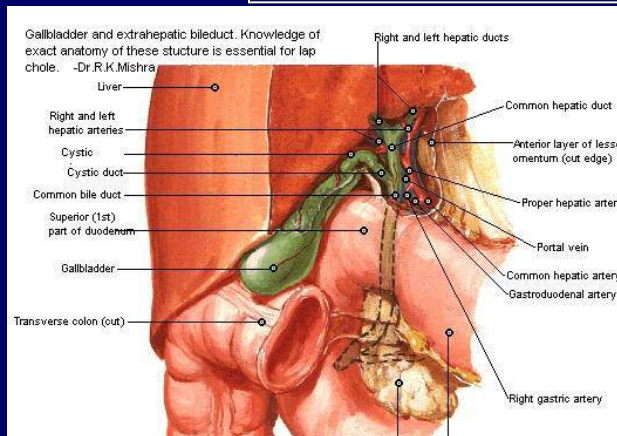
left lobe of the liver.

Spleen

Descending colon

Sigmoid colon

Walk over to Small Intestine



Inspection of Pelvis

□ Trendelenberg position

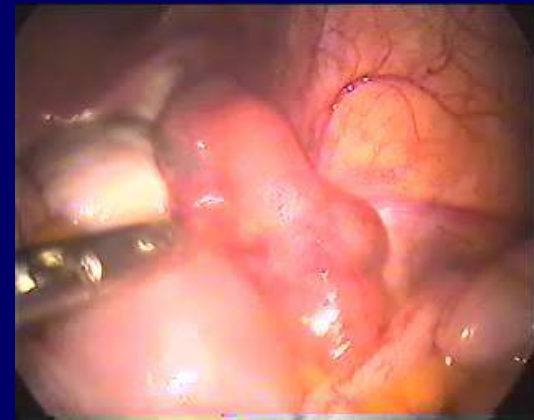
Fallopian tube
from cornu to fimbriae

↑
TPT if necessary

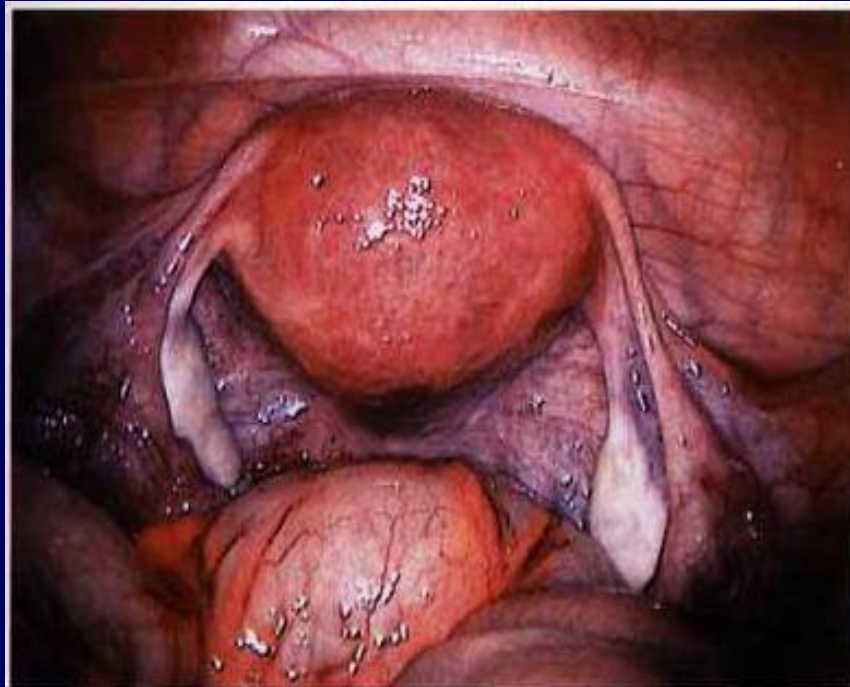
The round ligament

Anterior cul de sac

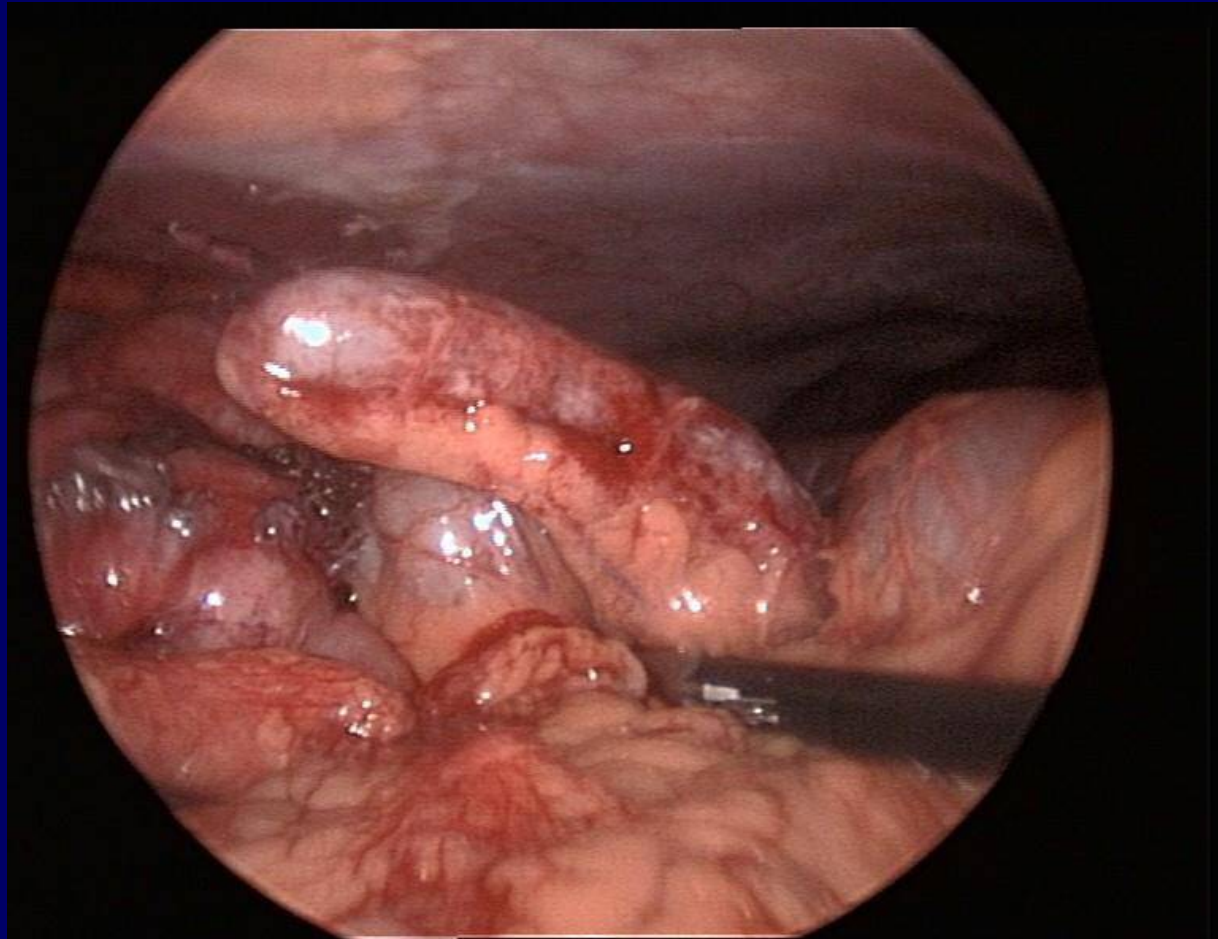
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Uterus



Normal Pelvis



Appendicitis



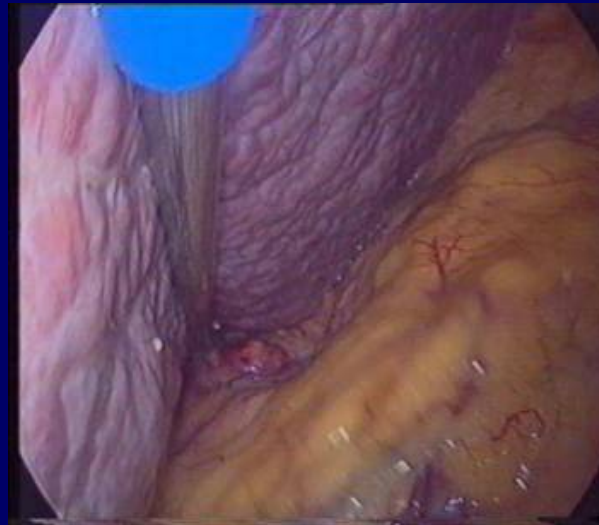
T.B. Abdomen



Video demonstration of miliary tuberculosis



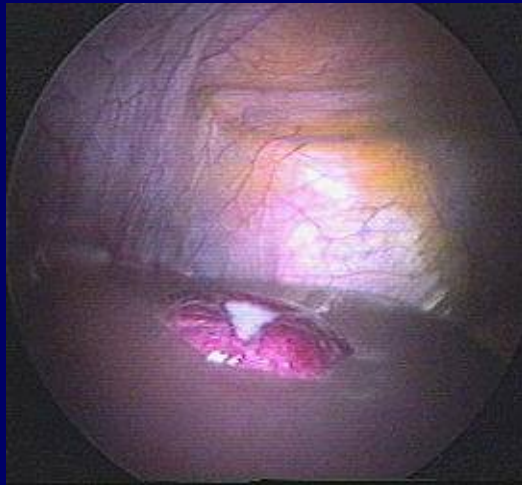
Cirrhosis of Liver



Video of cirrhotic liver with enlarged lymph node



Carcinoma & Haemangioma liver



Carcinoma of liver secondary to GB CA



Small bowel Lymphoma



Carcinomatosis



Metastasis of Gastric Carcinoma



Video demonstration of Metastasis of Gastric carcinoma



Duodenal Perforation



Video showing Duodenal Perforation



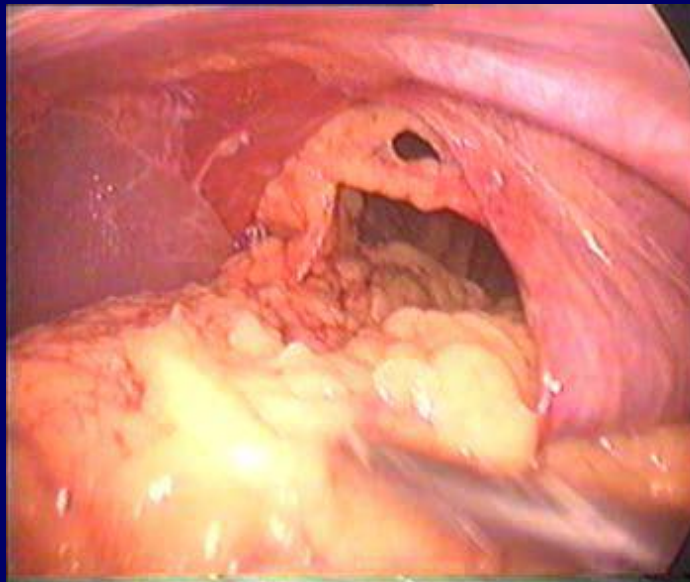
Intestinal Obstruction



Diagnostic Laparoscopy for Intestinal obstruction



Trauma



Video showing rupture diaphragm after RTA



Trauma



Video showing laceration of liver after RTA



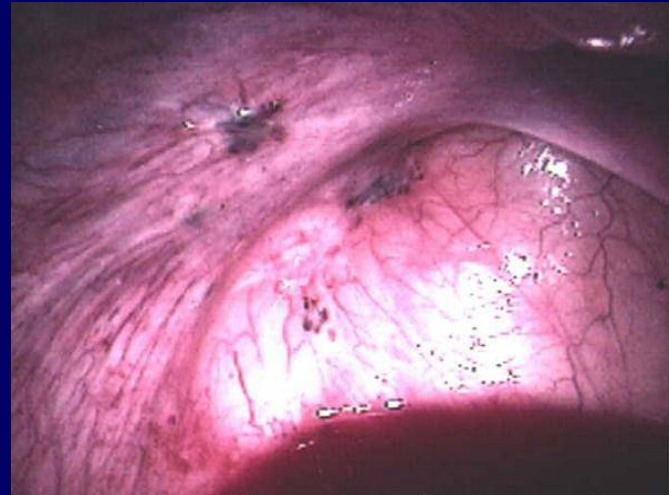
Hemorrhagic Pancreatitis



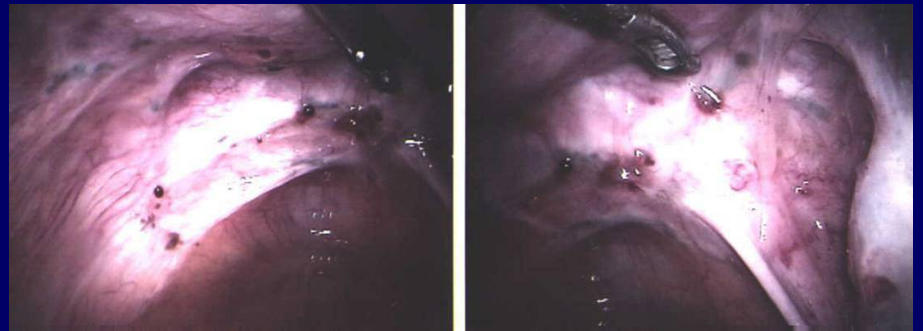
Video showing diagnosis and management of hemorrhagic pancreatitis



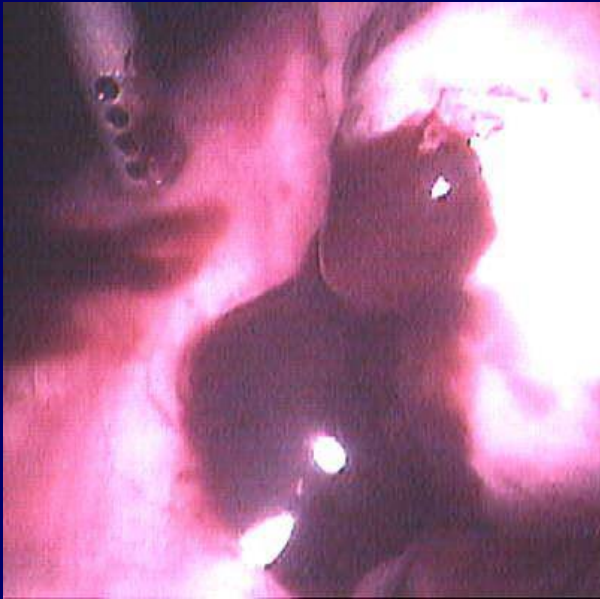
Endometriosis



Common site of Endometriosis is
Uterosacral ligament



Endometriosis



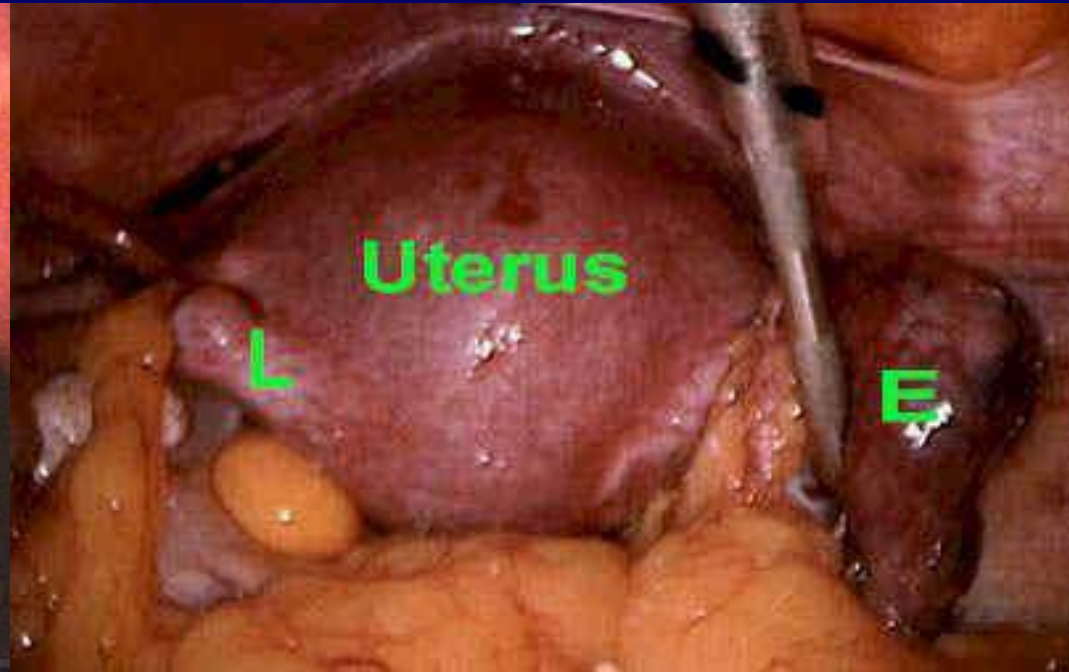
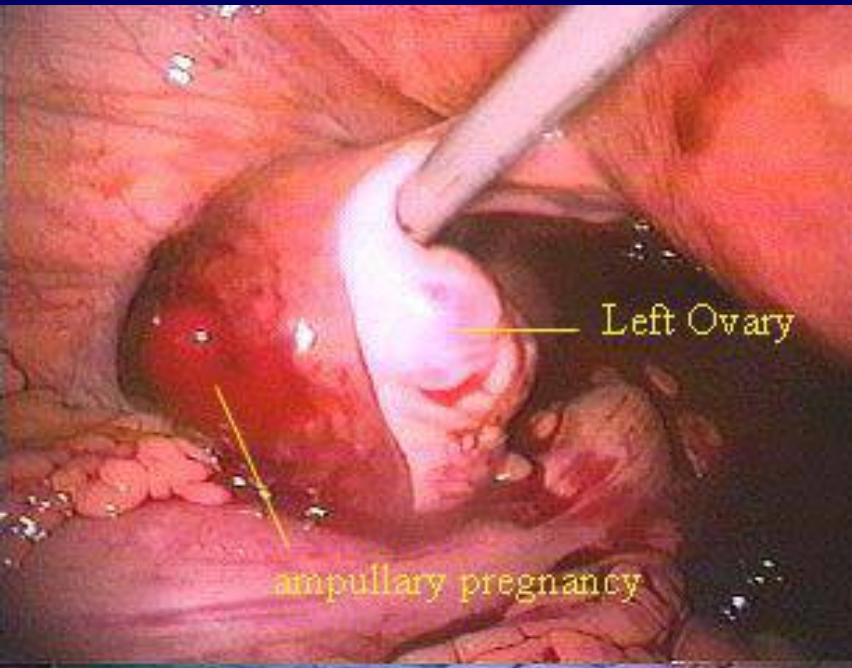
Chocolate Cyst



Video of Tubo-ovarian Mass after
Endometrioma



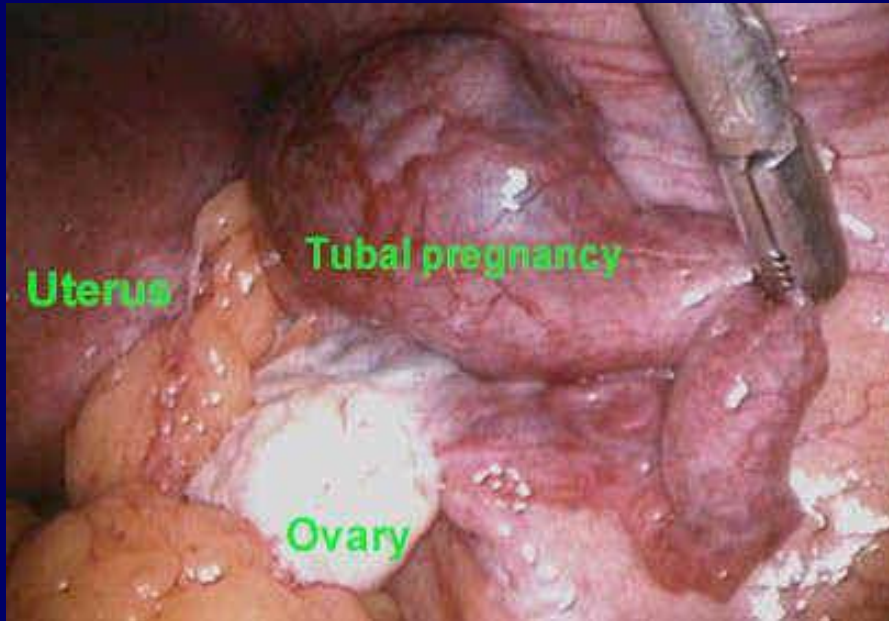
Ectopic pregnancy



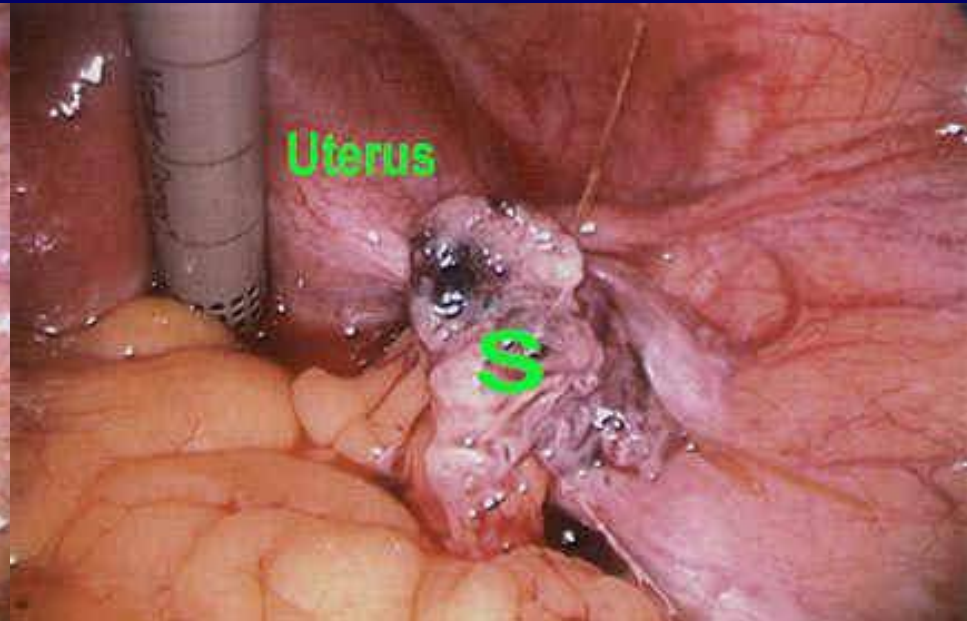
Unruptured Ectopic Pregnancy



Ectopic pregnancy



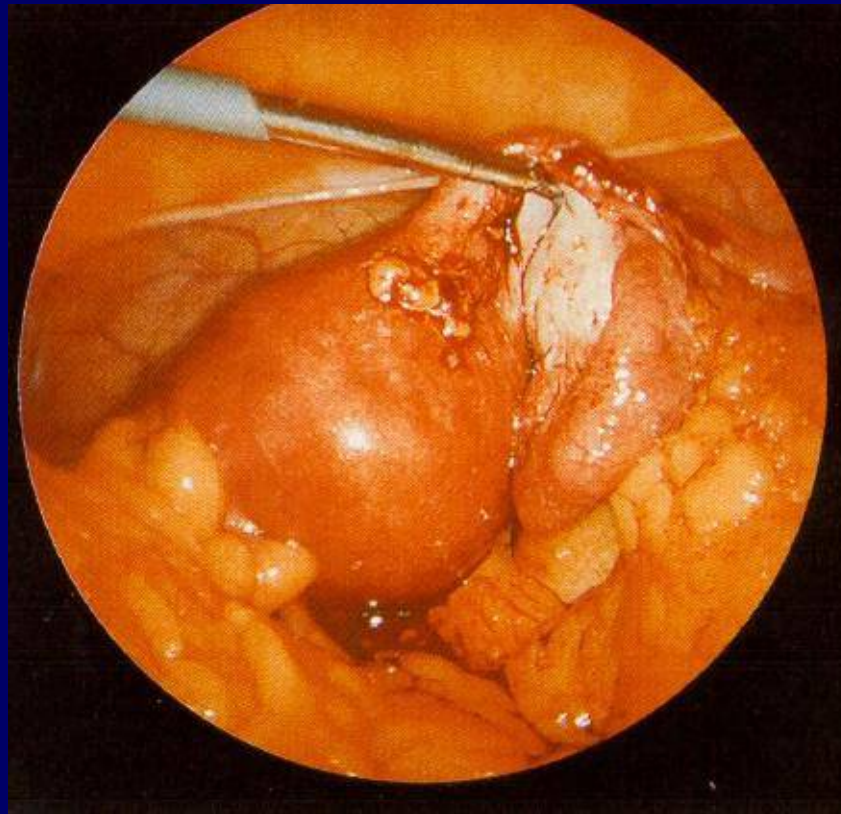
Unruptured tubal pregnancy



Small ruptured tubal pregnancy



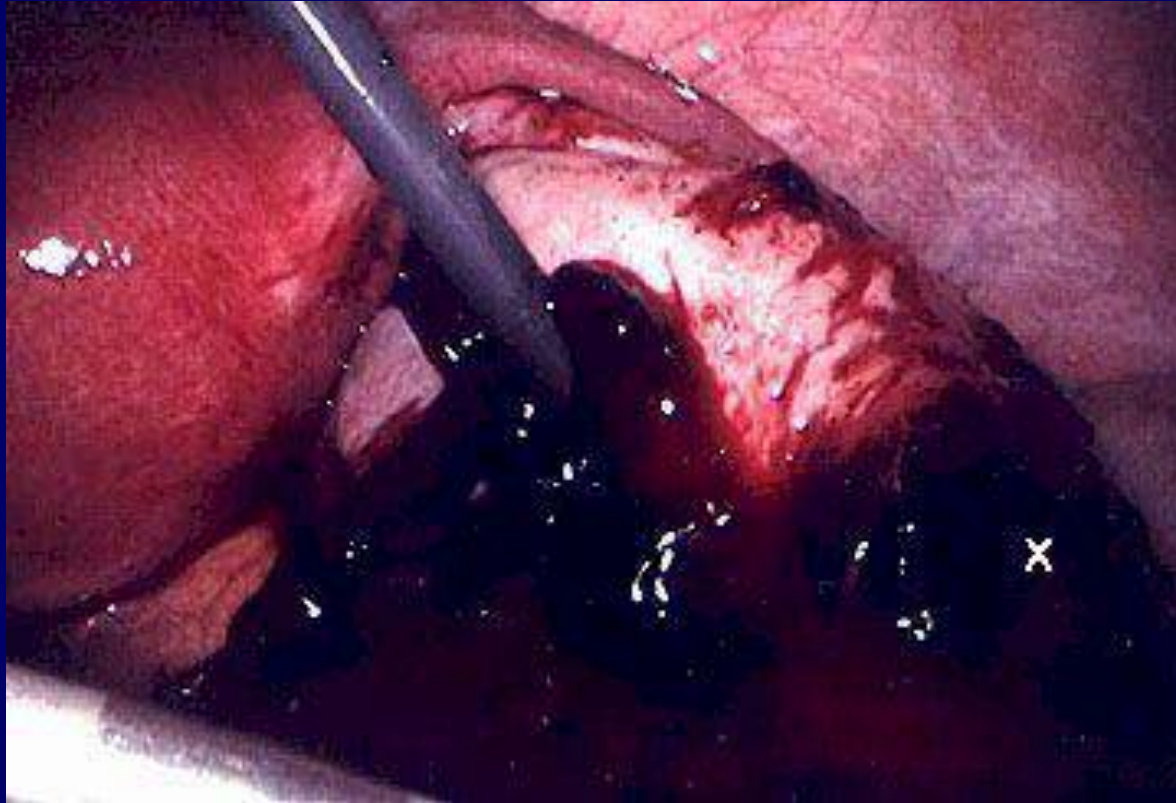
Small Ruptured Ectopic pregnancy



Small ruptured tubal pregnancy of right side



Ectopic Pregnancy

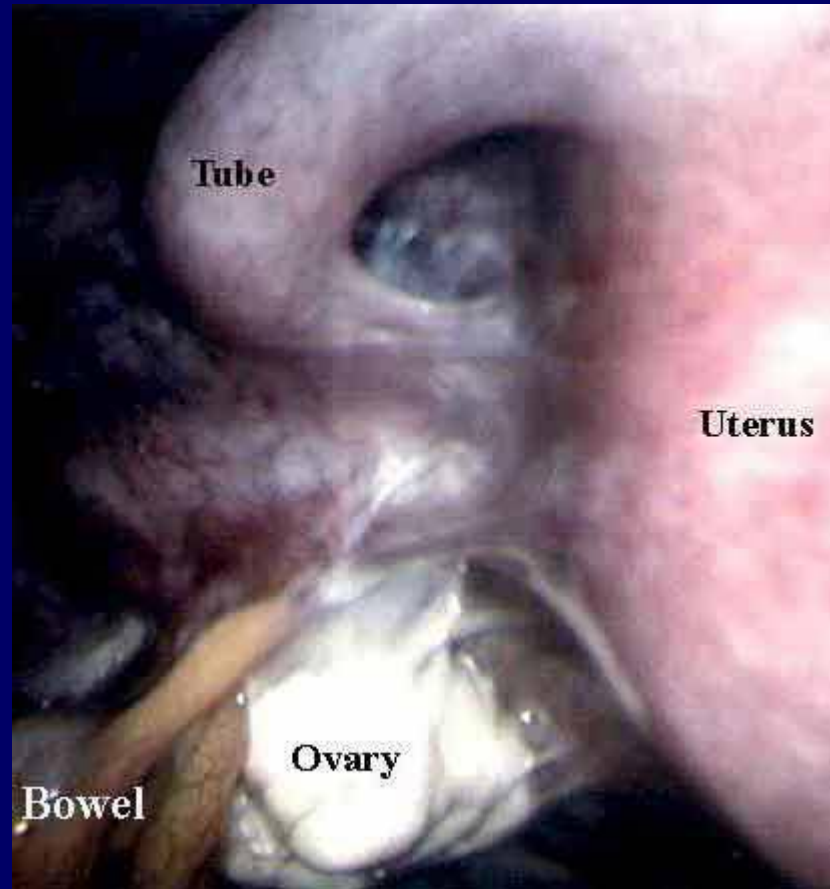


Hematoma after ruptured ectopic pregnancy



Pathology

Tubo-ovarian mass





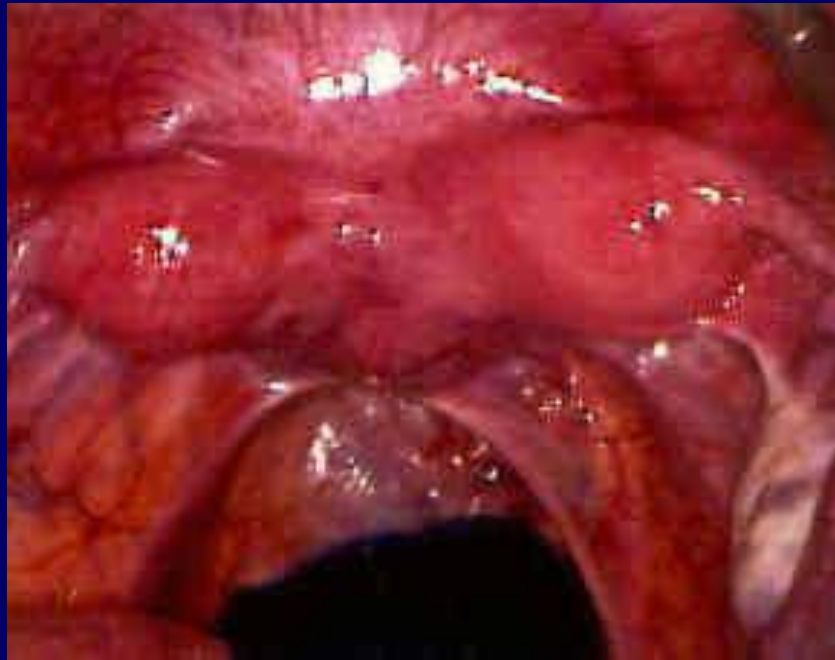
Fimbrioplasty



Fimbrioplasty Laparoscopic Approach



Bicornuate uterus



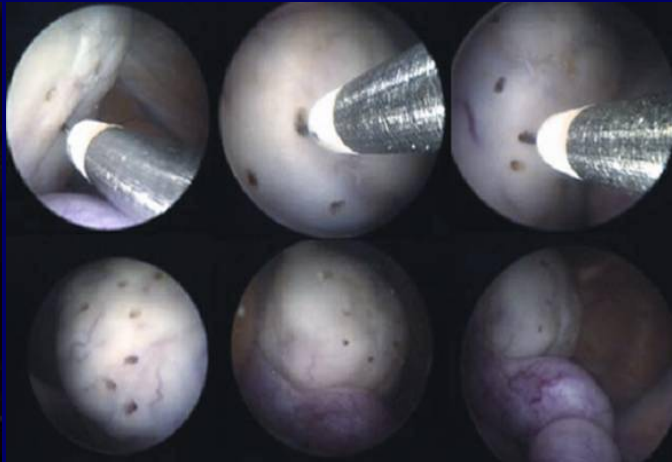
Bicornuate uterus can be easily diagnosed during diagnostic laparoscopy



Ovarian Drilling with PCOD Needle



Polycystic ovary



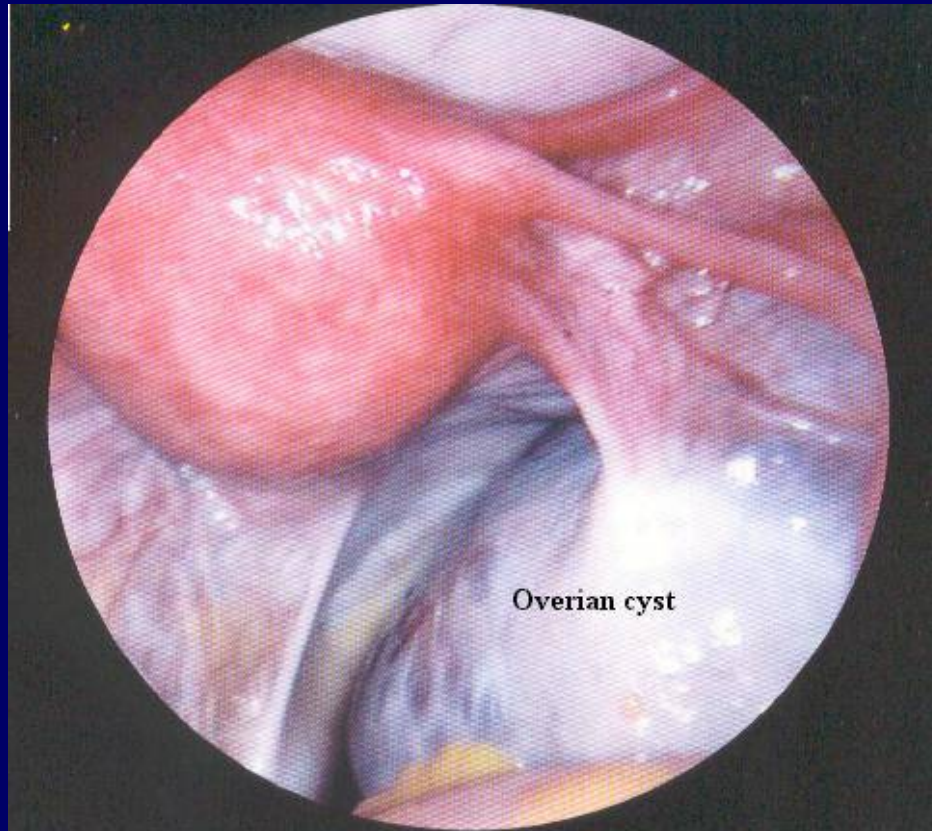
Over drilled
polycystic ovary



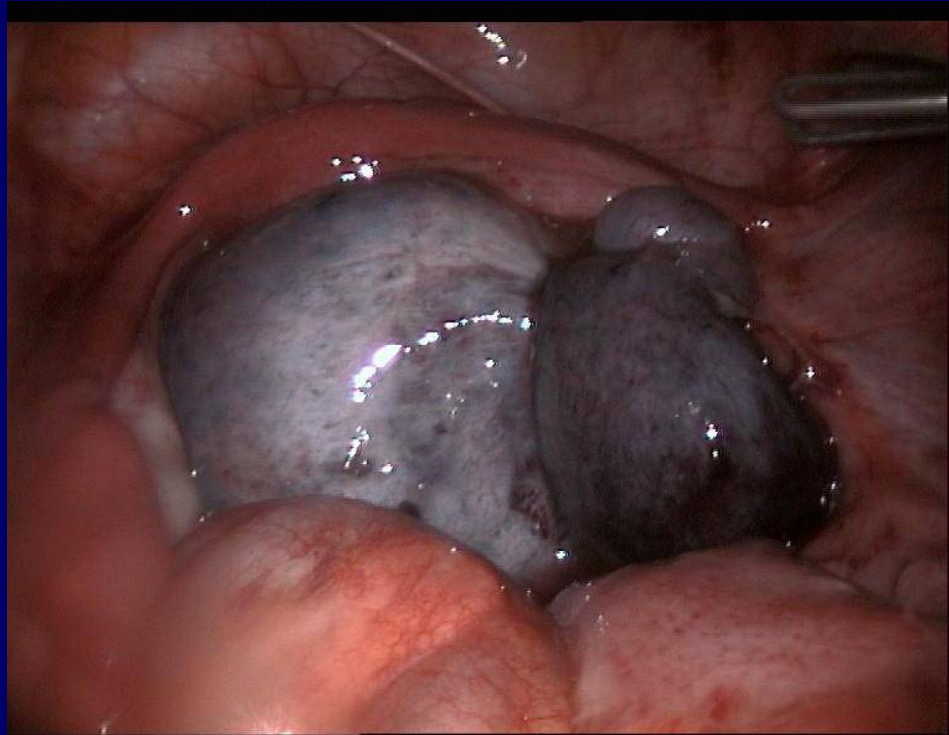
drill.mov



Ovarian Cyst



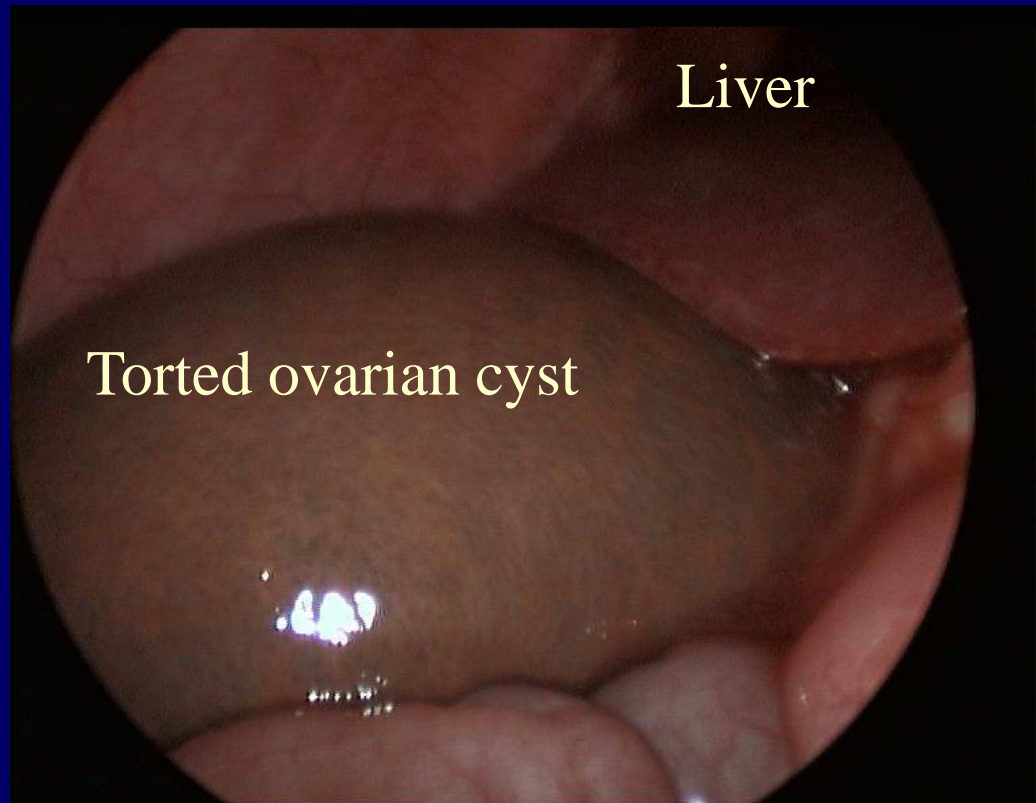
Torted Ovarian Cyst



Torted ovarian cyst with start of gangrene of fallopian tube



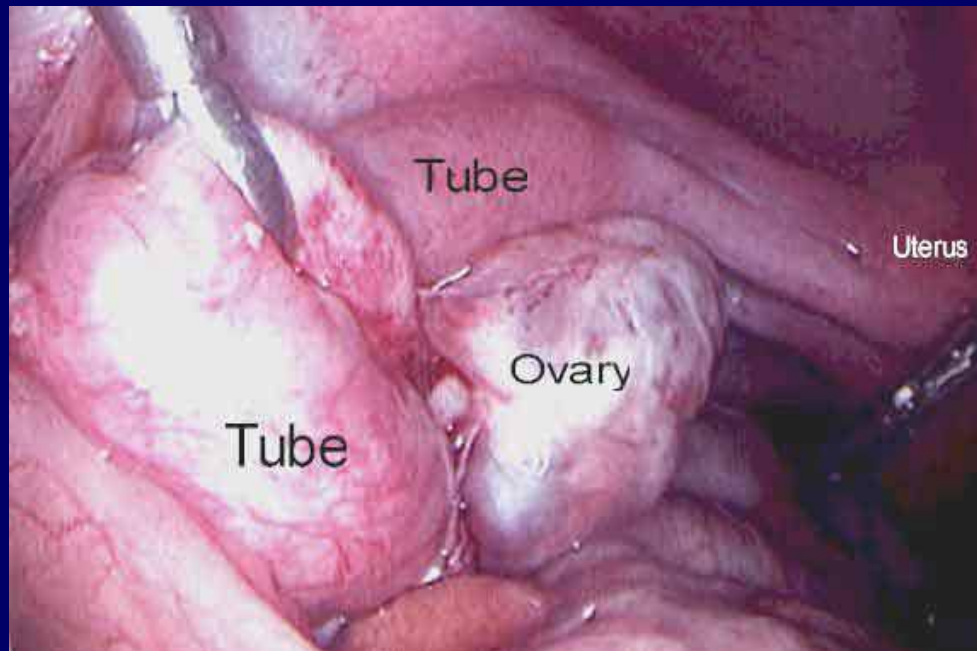
Torted Ovarian Cyst



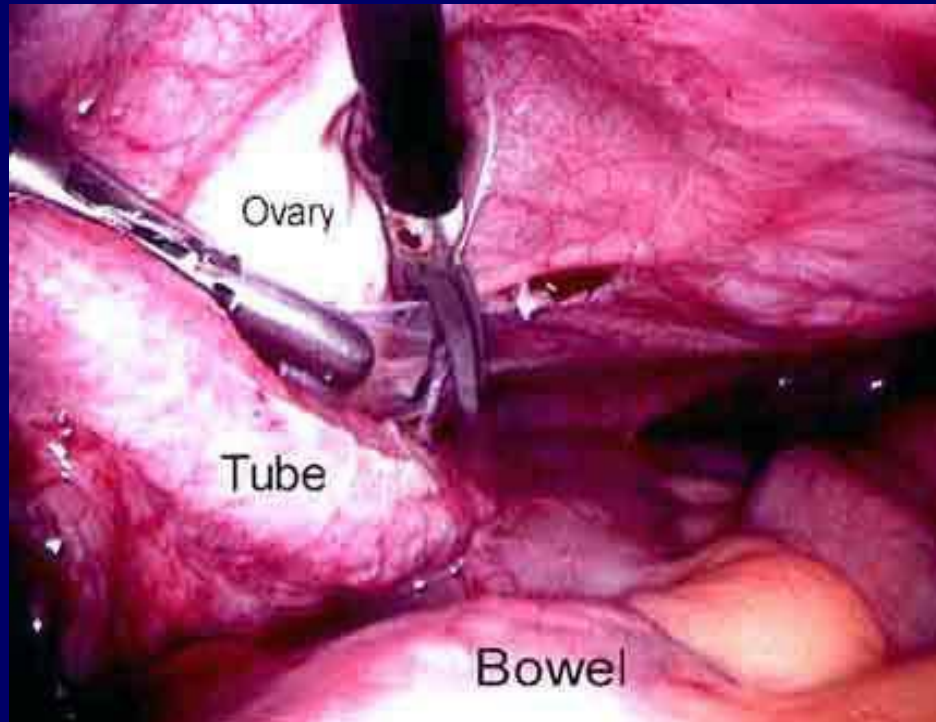
Follicular Cyst



Hydrosalpinx



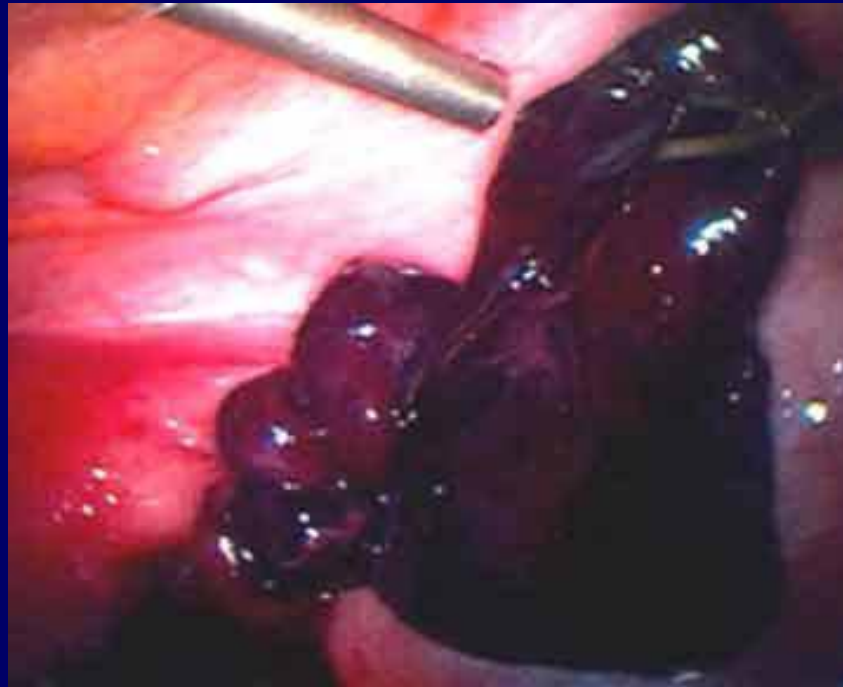
Adhesion



Flimsy adhesion can be removed with the help of scissors



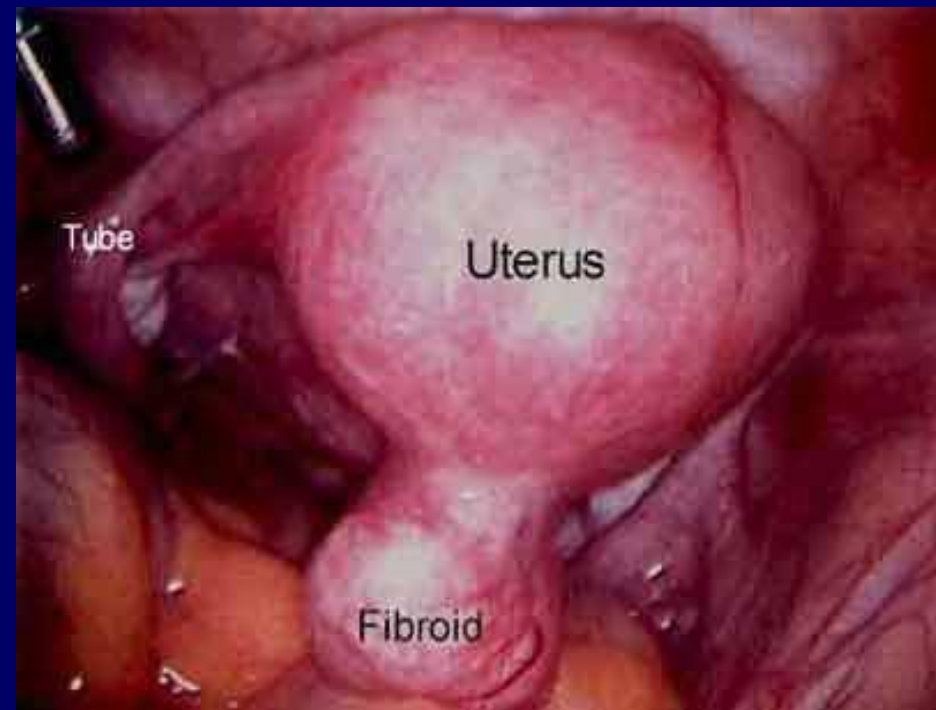
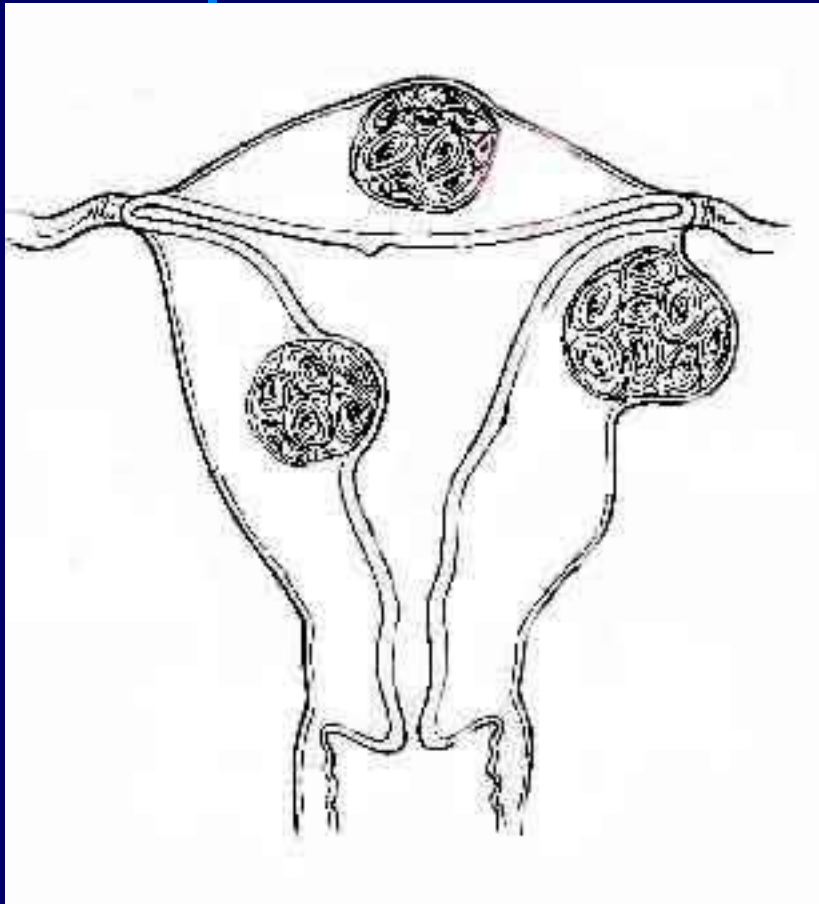
Gangrene fallopian tube



Gangrene of Fallopian tube can be seen occasionally



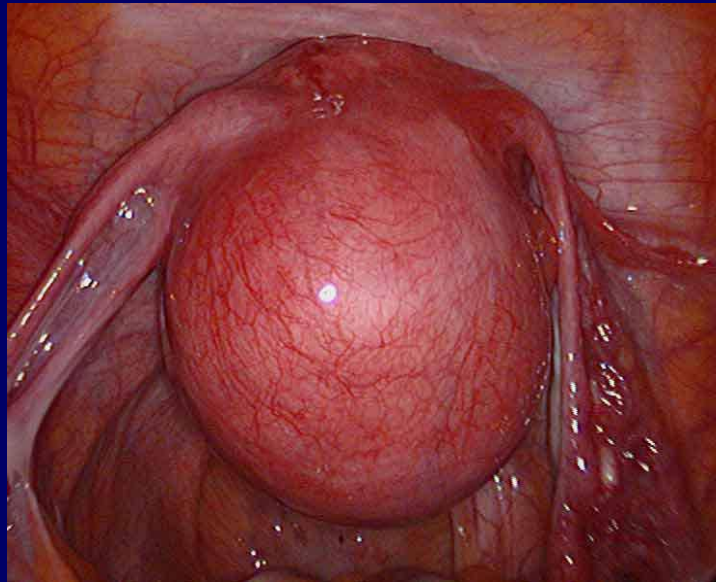
Fibroid



Sub serous and intramural fibroid



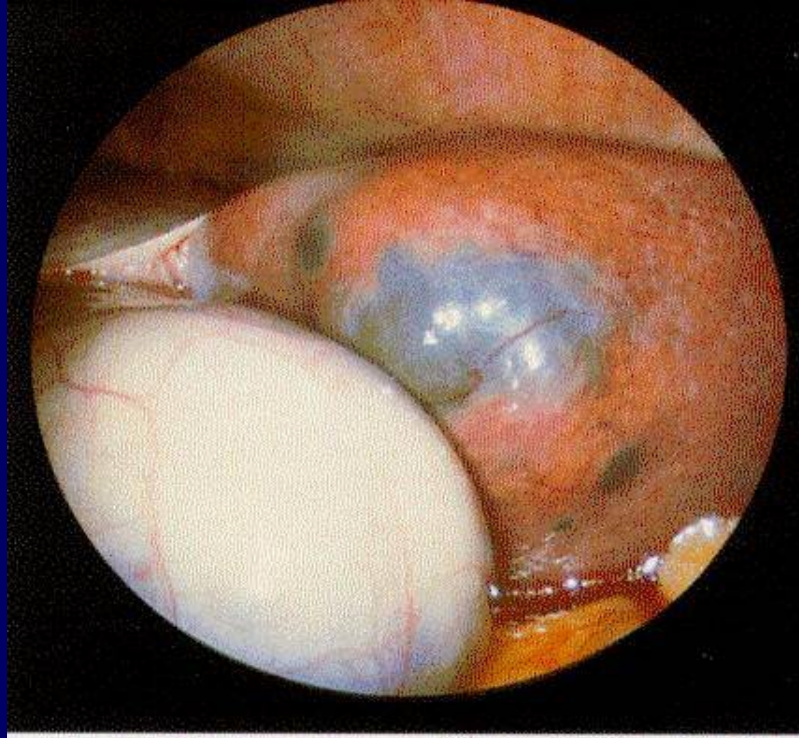
Fibroid



After proper consent Myomectomy can be performed if gynecologist has sufficient suturing skill



Huge cyst of liver



Hydatid cyst of liver can be managed laparoscopically nicely



Lymphangioma of Mesentery



Infertility



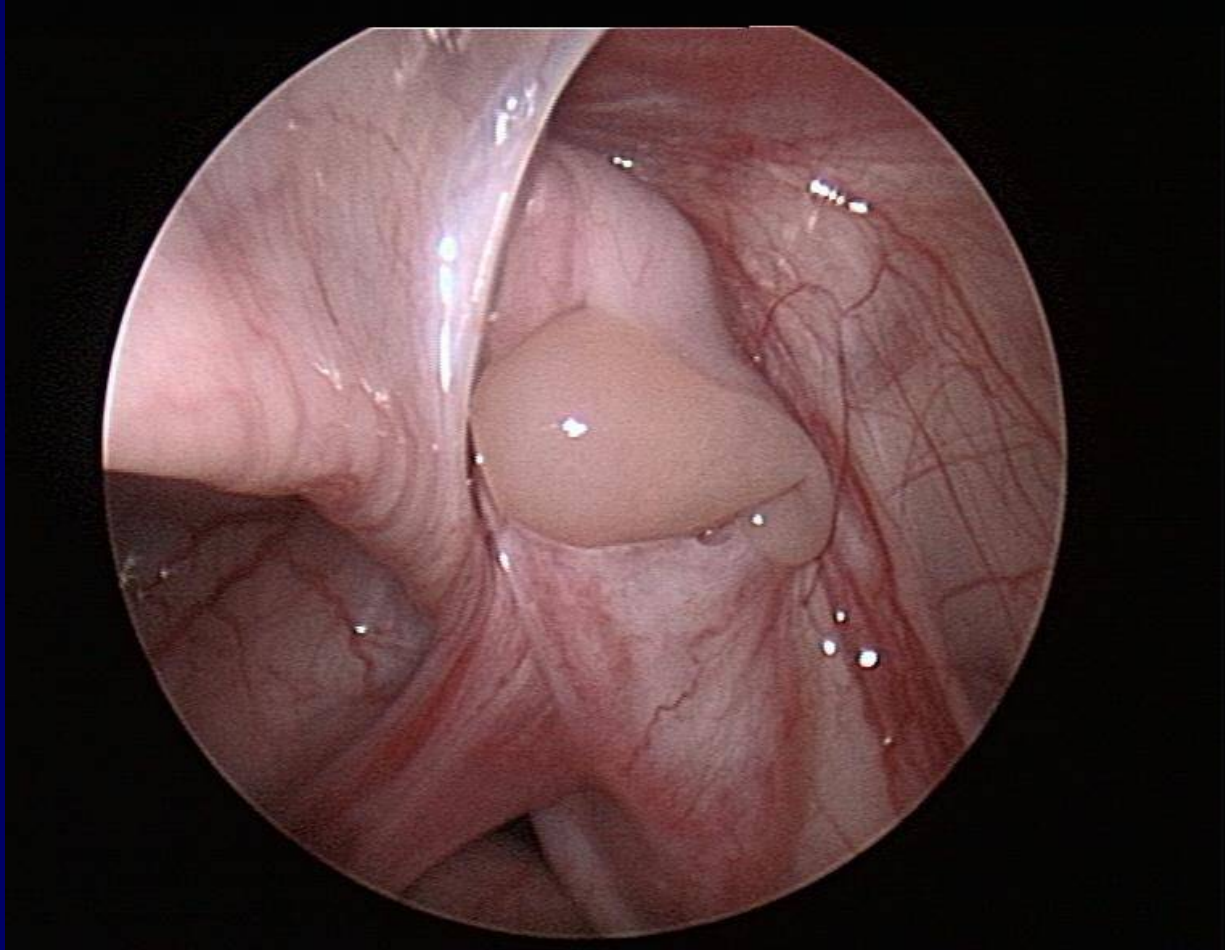
Video demonstrating severe adhesion after Chronic PID



Meckels Diverticulum



Impalpable Testes



Adhesiolysis



Video demonstration of adhesiolysis with the help of scissors and Bipolar hook



Adhesiolysis with Harmonics



Staging for Oncology



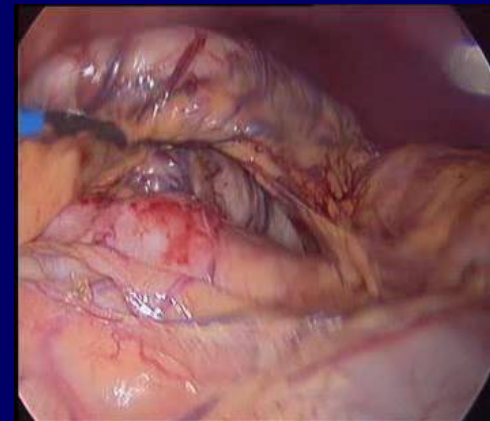
Lymphomaa



End of Surgery

- Specimen is collected for Cytology and Biopsy
- Therapeutic
Laparoscopy can be performed if consent of patient is there

Video demonstrating dissection and retrieval of tissue for biopsy



Thank You



Prof. Mishra with trainees of Advanced course September 2006

