



## Gynecology

Common gynaecological procedure

University of Fallujah

College of medicine



Lecture : 6

Stage : 5<sup>th</sup>

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Department : Obstetrics & gynecology

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## Learning objective

- ▶ At the end of this presentation, the learner will be able to:
  1. **Describe** the purpose and basic technique of diagnostic and operative hysteroscopy.
  2. **List** the main indications, contraindications, and complications of hysteroscopy.
  3. **Explain** the essential equipment and key steps involved in laparoscopy.
  4. **Identify** the indications, contraindications, and common complications of laparoscopic surgery.
  5. **Differentiate** between abdominal and vaginal hysterectomy and recognize when each approach is preferred.

- ▶ *The single most important change in gynecological surgical practice over the last 20-30 years is the endoscopic surgery.*

# Hysteroscopy

- ▶ Hysteroscopy involves passing a small-diameter telescope, either flexible or rigid, through the cervix to directly inspect the uterine cavity..
- ▶ A flexible hysteroscope may be used in the outpatient setting.
- ▶ Rigid instruments employ circulating fluids and therefore can be used to visualize the uterine cavity even if the woman has bleeding.

Flexible hysteroscope

Vagina

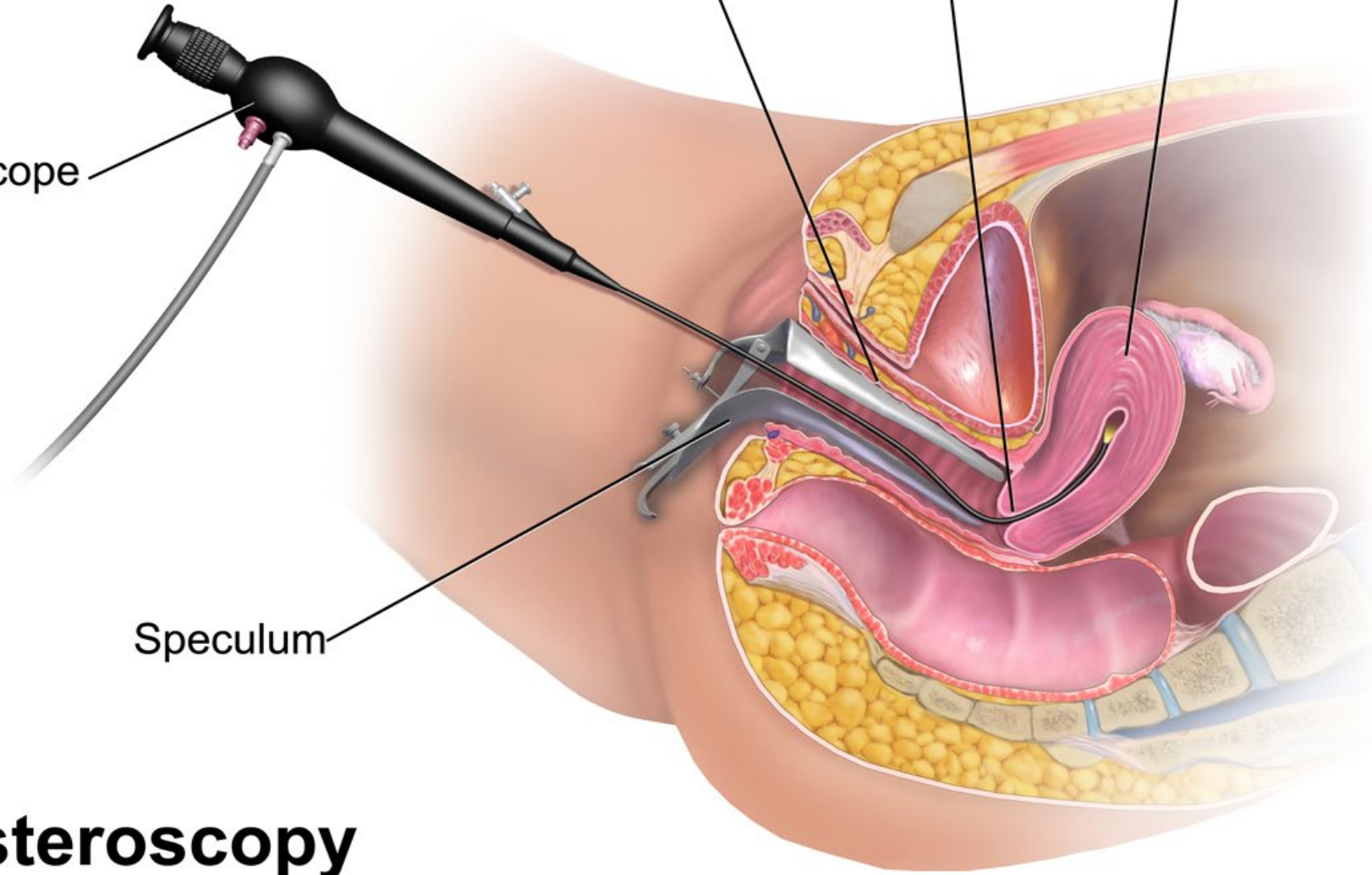
Cervix

Uterus

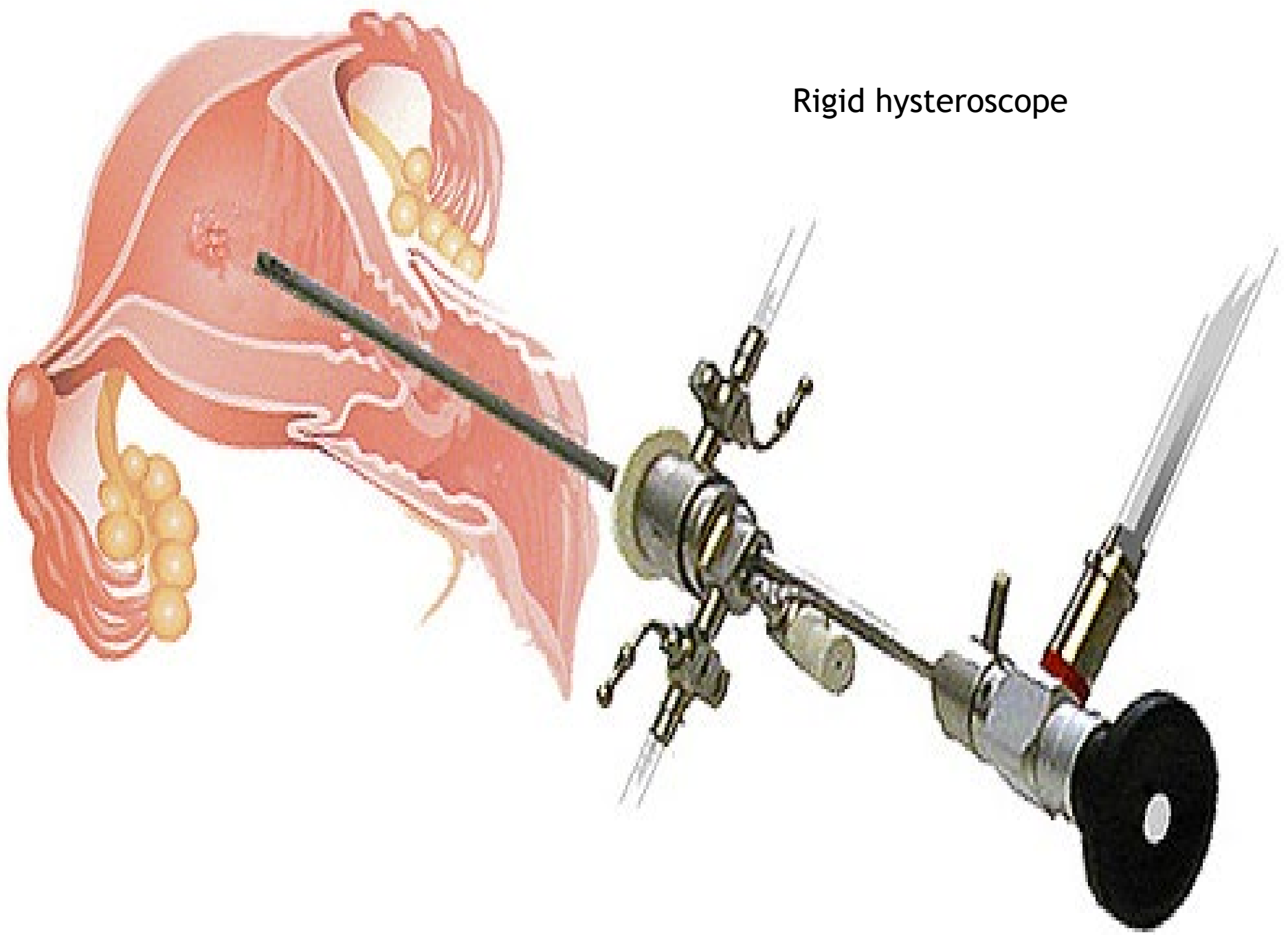
Hysteroscope

Speculum

# Hysteroscopy



Rigid hysteroscope



## Diagnostic hysteroscopy:

- ▶ *Diagnostic hysteroscopy has become a **basic investigation in modern gynecology** and has essentially replaced the D & C (dilation and curettage).*
- ▶ *It can be done as an **outpatient procedure**, also used in the management of menstrual symptoms.*

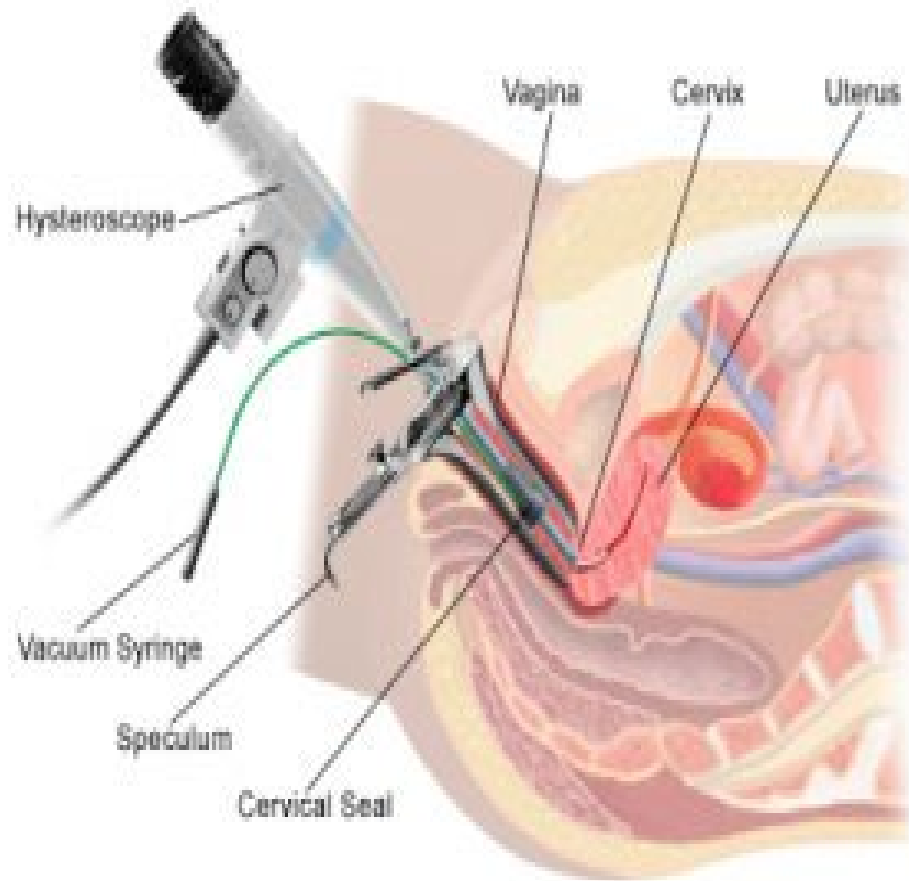
## Indications to diagnostic hysteroscopy:

- ▶ *Intermenstrual bleeding (IMB) despite normal cervical smear*
- ▶ *Abnormal menstruation not responsive to medical treatment (age <40 years)*
- ▶ *Post coital bleeding (PCB) despite normal cervical smear*
- ▶ *Post menopausal bleeding (PMB) (persistent or endometrial thickness  $\geq 4$  mm)*

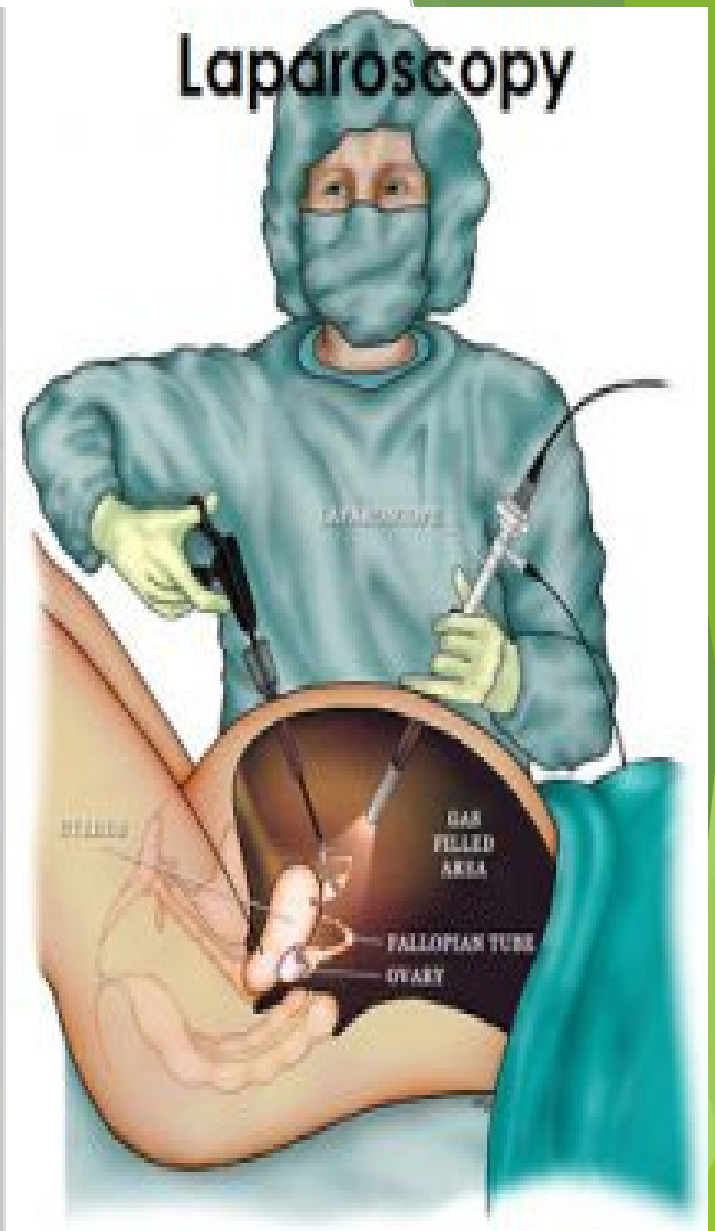
## Indications to diagnostic hysteroscopy:

- ▶ *Abnormal pelvic ultrasound findings (e.g. endometrial polyps, submucous fibroids)*
- ▶ *Subfertility*
- ▶ *Recurrent miscarriage*
- ▶ *Asherman's syndrome*
- ▶ *Congenital uterine anomaly*
- ▶ *Lost intrauterine contraceptive device (IUCD)*

# Hysteroscopy



# Laparoscopy

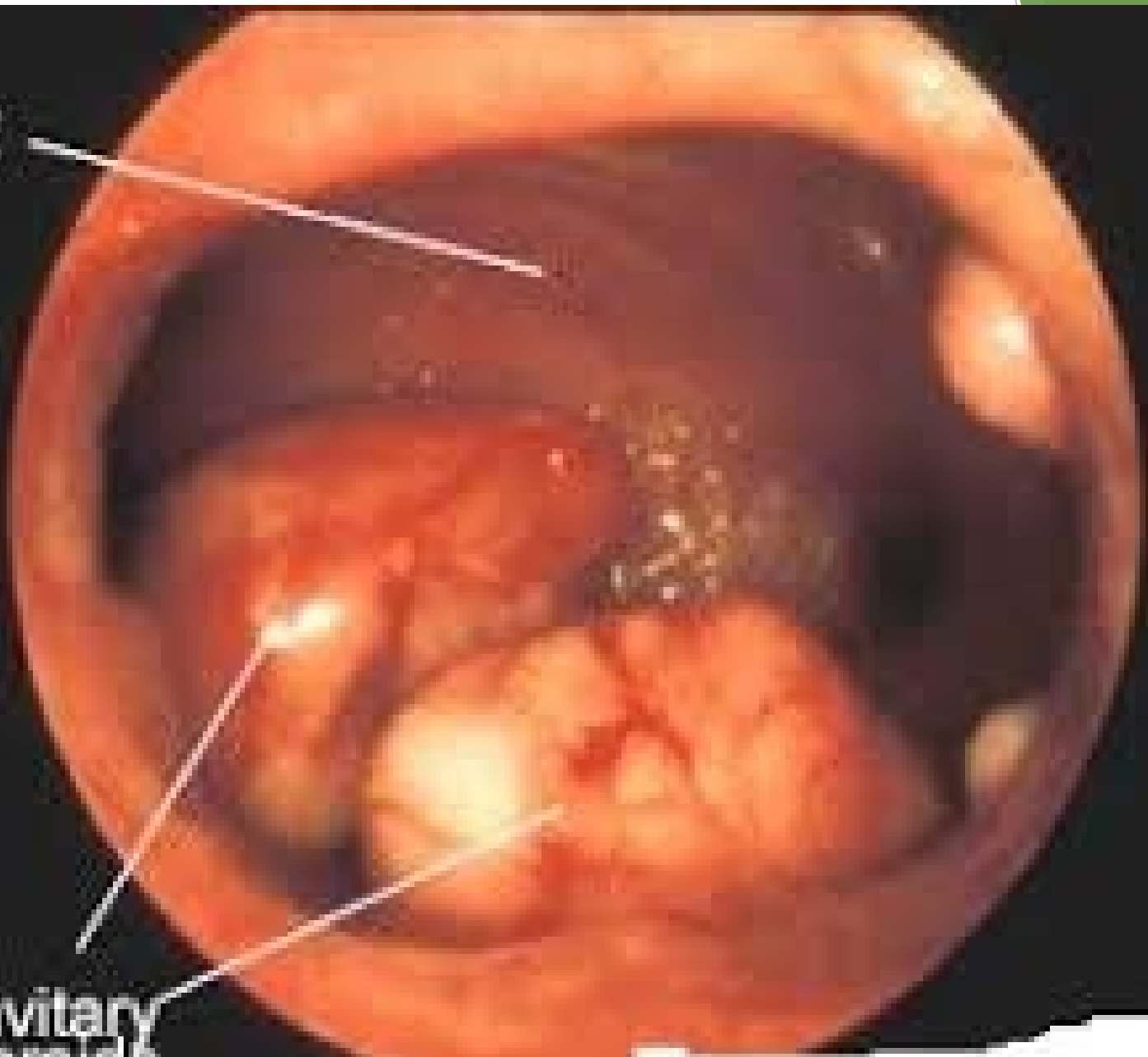




OLYMPUS



Uterine  
Cavity



Intracavitary  
Fibroids



## Distension media

- ▶ IF we used monopolar diathermy can used glycine or distal water.
- ▶ In bipolar diathermy we used normal saline or ringer solutions .

## Complications of diagnostic hysteroscopy:

- ▶ pain when negotiating the cervix or distending the uterine cavity, and a vasovagal reaction to cervical dilatation.
- ▶ Uterine perforation .
- ▶ Infection and excessive bleeding are rarely seen.

## Indications of operative hysteroscopy:

- ▶ Polypectomy
- ▶ Endometrial sampling
- ▶ Removal of intrauterine contraceptive device
- ▶ Proximal fallopian tube cannulation
- ▶ Asherman's syndrome treatment
- ▶ myomectomy
- ▶ Division/resection of uterine septum
- ▶ Endometrial resection or ablation

# Complications of operative hysteroscopy

## **Early :**

- ▶ Uterine perforation
- ▶ Fluid overload
- ▶ Haemorrhage
- ▶ Gas embolism
- ▶ Infection
- ▶ Cervical trauma

## Contraindications to diagnostic hysteroscopy:

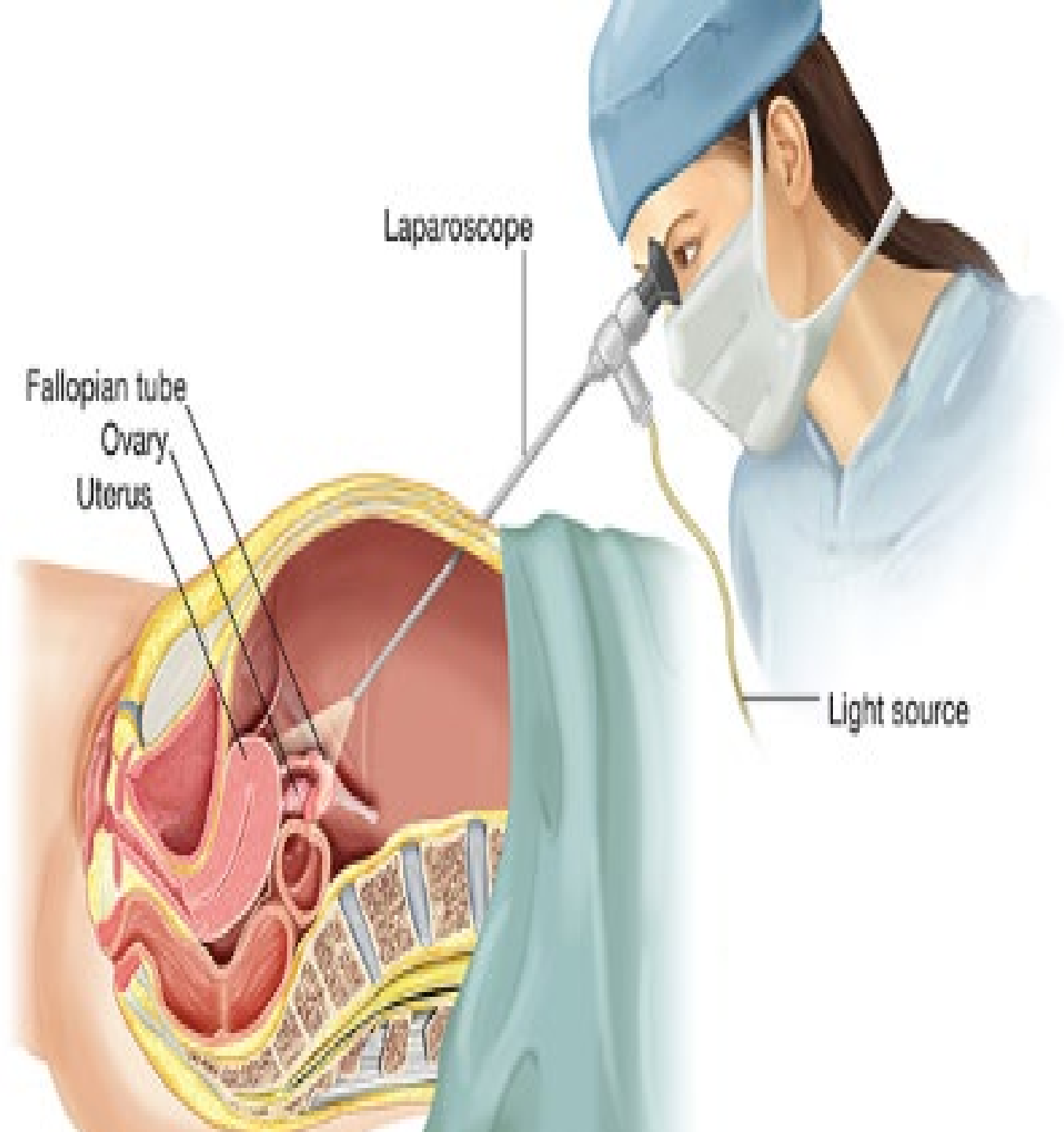
- ▶ *Pelvic infection*
- ▶ *Pregnancy*
- ▶ *Cervical cancer*

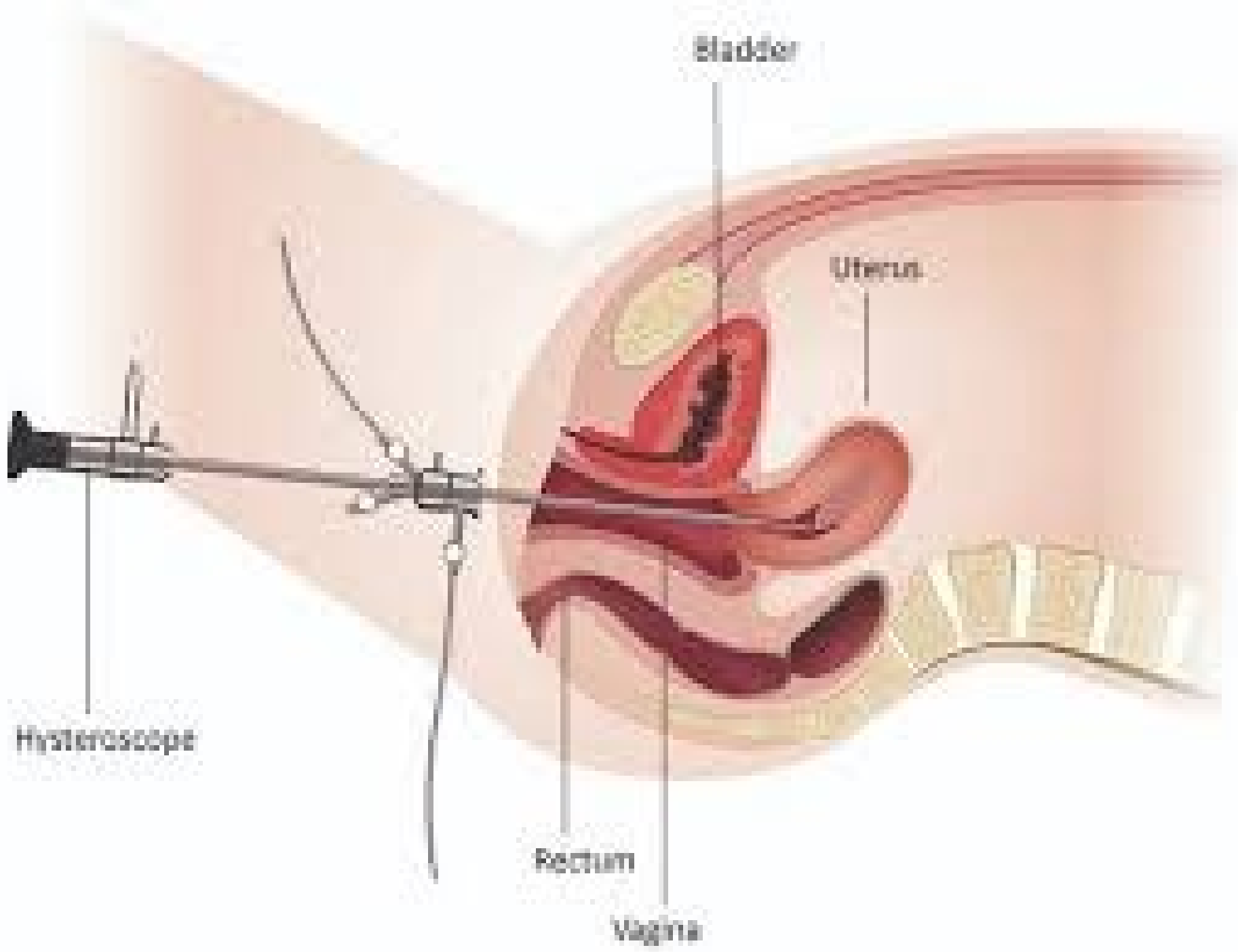
# laparoscopy:

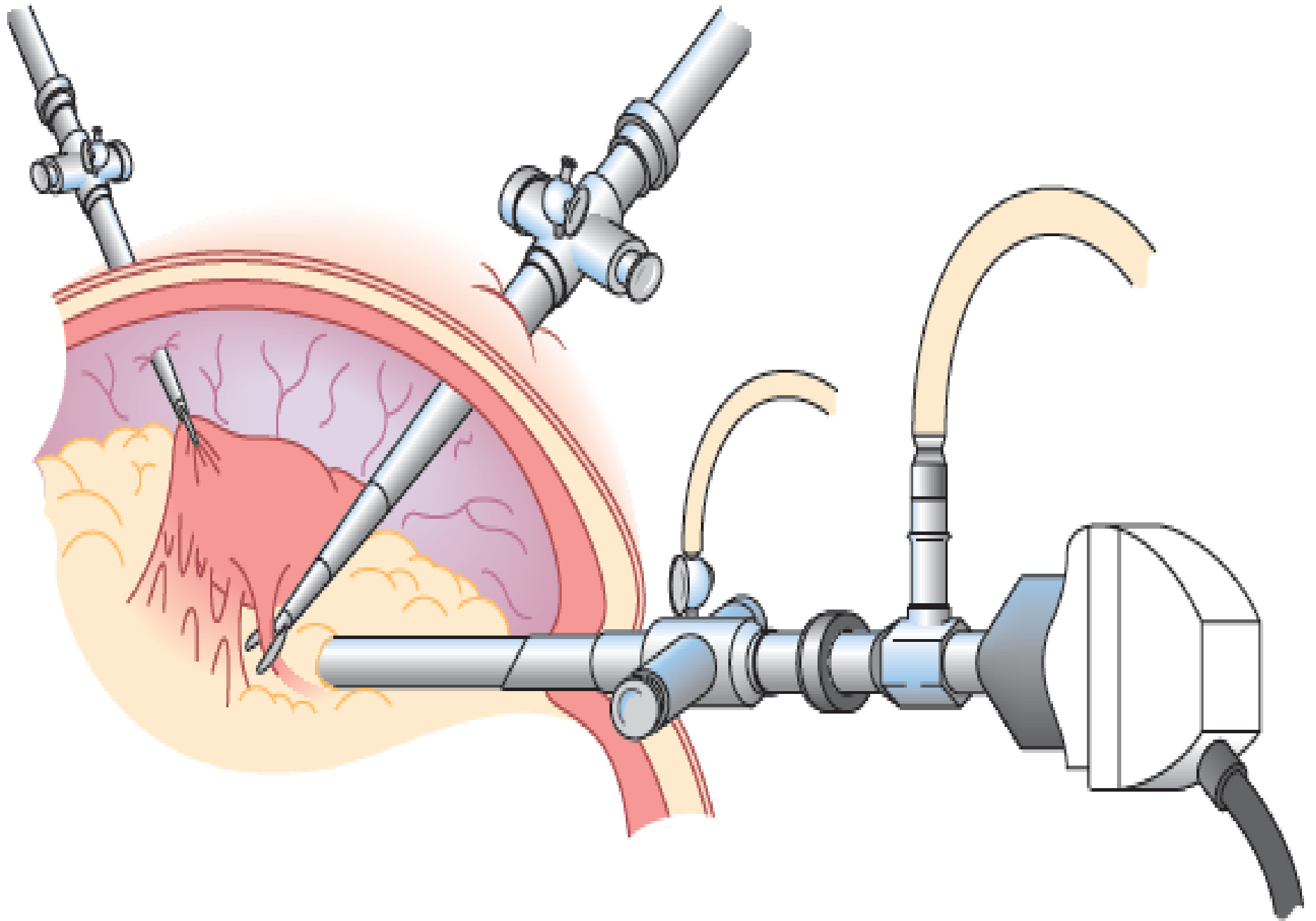
## Equipment of laparoscopy

- ▶ **VERESS NEEDLE.**
- ▶ **TROCARS AND CANNULAE**
- ▶ **LAPAROSCOPIC INSUFFLATOR:** These pumps control intra-abdominal pressure rather than flow of CO<sub>2</sub>, and this should be set **at 12-15 mmHg**
- ▶ **SUCTION/IRRIGATION PUMP:** can be used to aspirate blood and clean the pelvis.
- ▶ **ANCILLARY INSTRUMENTs such as**
  - ▶ **grasping forceps** are the surgeon's hands.
  - ▶ **Bipolar forceps** should always be available for haemostasis









3 Schematic diagram showing laparoscope.

## Indications of laparoscopy

- ▶ • Suspected ectopic pregnancy.
- ▶ • Undiagnosed pelvic pain.
- ▶ • Tubal patency testing.
- ▶ • Sterilization.
- ▶ Operative laparoscopy can be used to perform ovarian cystectomy or oophorectomy and to treat endometriosis with cautery or laser.
- ▶ Reversal of sterilization is also possible using laparoscopy.

# Contraindications for laparoscopy

- ▶ Mechanical or paralytic bowel obstruction
- ▶ Generalized peritonitis
- ▶ Diaphragmatic hernia
- ▶ Major intra-peritoneal hemorrhage (e.g. shock)
- ▶ Severe cardio-respiratory disease

# Contraindications for laparoscopy

- ▶ Massive obesity
- ▶ Inflammatory bowel disease
- ▶ Large abdominal mass
- ▶ Advanced pregnancy
- ▶ Multiple abdominal incisions
- ▶ Irreducible external hernia

# Complications of laparoscopic surgery:

## Intraoperative:

- ▶ Bowel injury
- ▶ Vascular injury
- ▶ Bladder injury
- ▶ Ureteric injury
- ▶ Surgical emphysema
- ▶ Anaesthetic complications

## Post operative:

- ▶ Unrecognized visceral or vascular injury
- ▶ Venous thromboembolism
- ▶ Infection
- ▶ Port site hernia

## ▶ Abdominal and vaginal hysterectomy

- ▶ Vaginal hysterectomy is associated with a much quicker recovery than abdominal hysterectomy and is preferred for that reason.
- ▶ However, vaginal hysterectomy is not indicated when there is malignancy, as the ovaries often need to be removed and lymph nodes examined and sampled.

- ▶ If the uterus is larger than that of a 12-week pregnancy, an abdominal hysterectomy is usually preferred and is thought to be safer.

- ▶ Most abdominal hysterectomies are performed through a Pfannenstiel incision.
- ▶ Patients recover more quickly from this incision than from than a midline incision and the cosmetic result is more acceptable.
- ▶ For larger masses and malignancies, a midline incision is utilized.

Thank You

The text "Thank You" is rendered in a highly decorative, cursive script. The letters are filled with a deep red color and outlined with a thick, metallic gold border. The text is embellished with clusters of vibrant red roses and green foliage. Two white doves are depicted in flight, one positioned above the letter 'h' and the other above the letter 'o'. The entire graphic is set against a white background, which is itself placed on a larger white rectangular area. The overall composition is framed by abstract green geometric shapes in the corners of the page.