

# Minimal access surgery in gynaecological cancer



**Dr. Shobhana Mohandas. MD. DGO. FICOG**  
**Sun Medical Centre, Thrissur, Kerala**

**IS it safe for  
undiagnosed  
cases ?**

**IS it adequate for  
diagnosed cases ?**



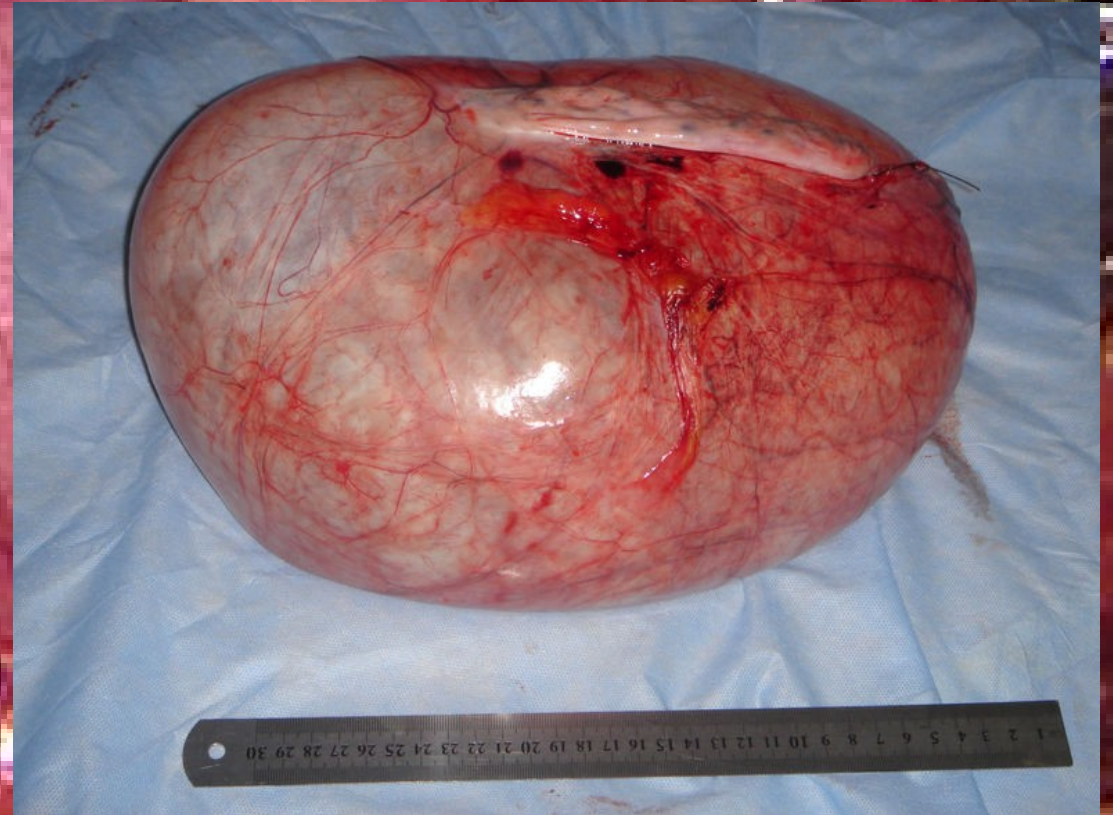
**preferred for  
inoperable cases  
for diagnosis ?**

**preferred for  
relook?**

2009



**Fear of pseudomyxoma peritonii still leads to laparotomy in many centres**



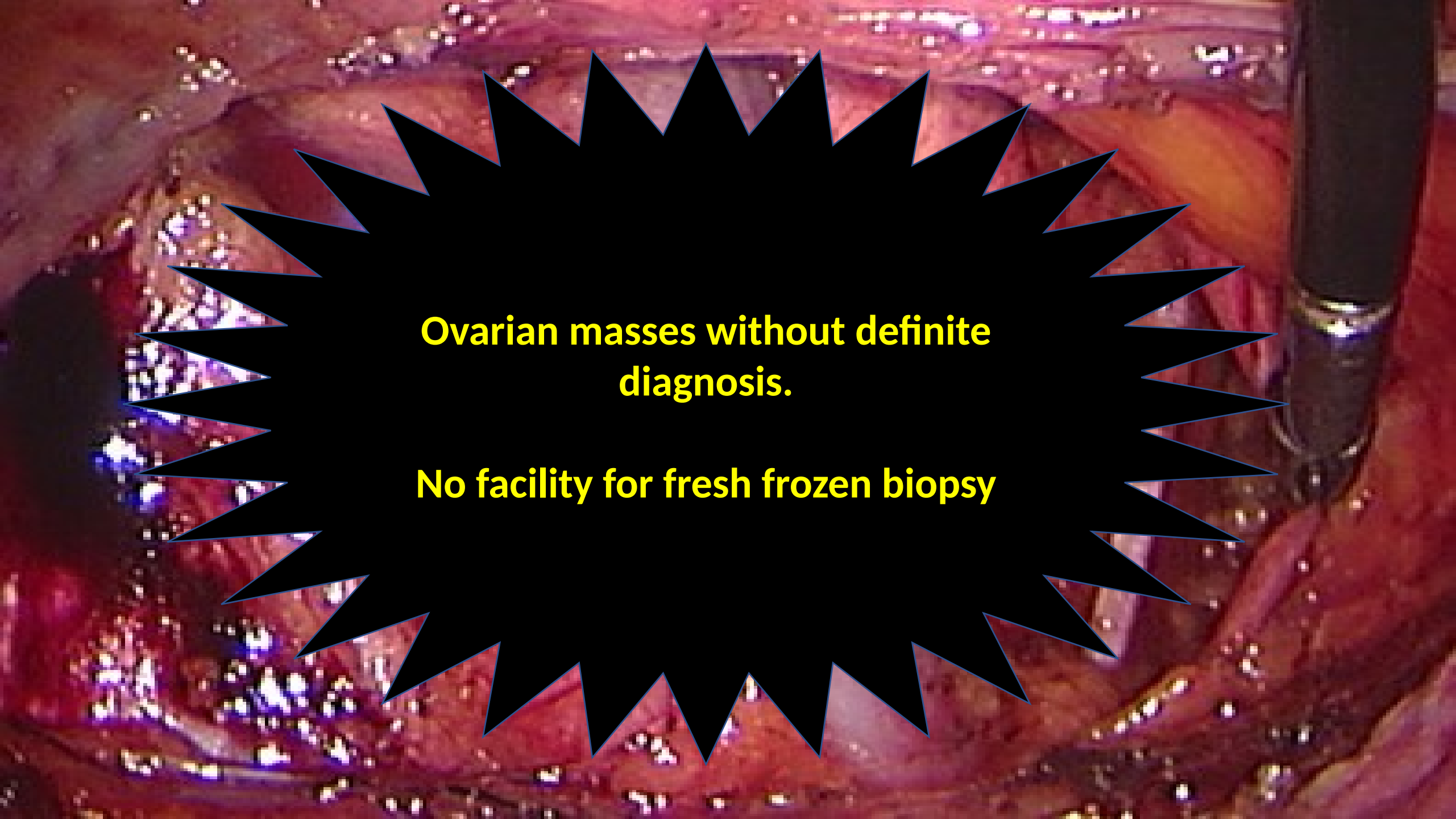


2015

**Intraoperative rupture of benign mucinous cystadenoma does not increase its recurrence rate.**

*Arch Gynecol Obstet.* 2015 May;291(5):1135-9.

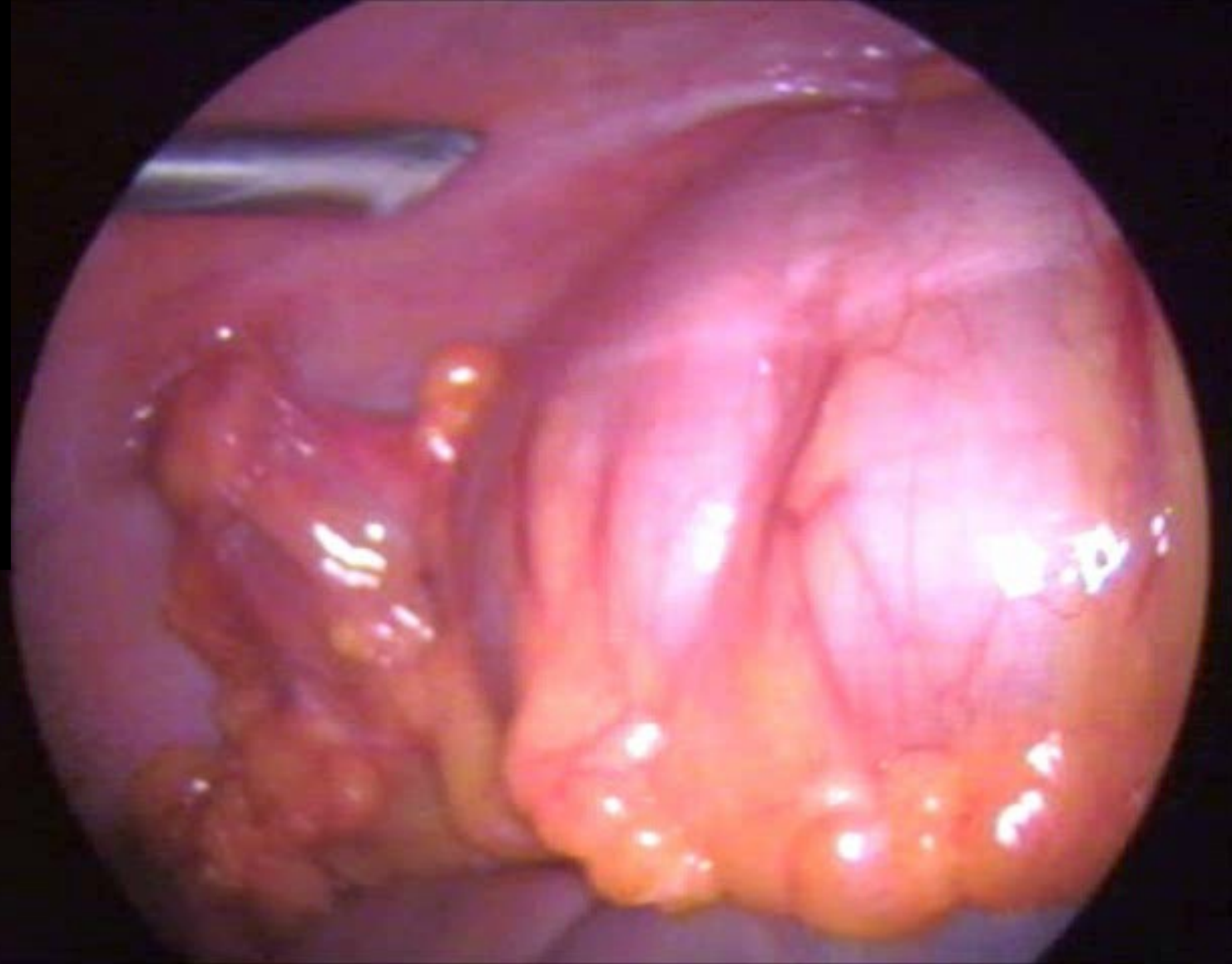
**Laparoscopic removal of benign mucinous cysts is safe, even in recurrent cases and is being reported widely .**

A laparoscopic view of an ovary with a large, complex, and irregular mass. The mass is dark and appears to have multiple components, possibly including solid and cystic areas. The surrounding pelvic structures, including the uterus and fallopian tube, are visible in a reddish-pink hue. A surgical instrument is visible on the right side of the frame.

**Ovarian masses without definite  
diagnosis.**

**No facility for fresh frozen biopsy**

- 8 cm ovarian cyst with solid components
- Normal CA-125
- Loss of weight- 6 months
- Age:40



**Krukenberg tumour,  
primary not found**

# Cancer spread after laparoscopy: possible reasons.

Spilled tumour cells drift to the trocar sites by contaminated instruments and pneumoperitoneum

Presence of ascites and direct contact of tumour to trocar canals help port site metastasis

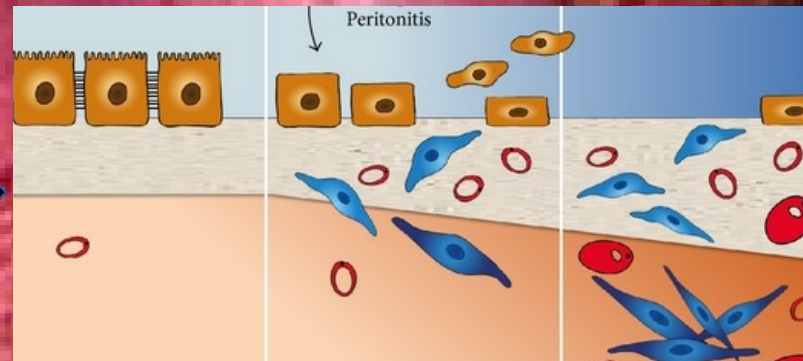
Ischaemia of port sites will lead to higher implantation of tumour cells.

CO<sub>2</sub> and smoke from electrocautery with tumour cells implant to trocar sites when pressing out through narrow canals: The chimney effect



CO<sub>2</sub>

Pressure & Acidosis



Damage of peritoneal mesothelium

Attack by tumour cells



A close-up photograph of a surgical site, likely a laparoscopic port site, showing the underlying muscle and peritoneum. The image is overlaid with five black text boxes containing yellow text, providing instructions for the surgical procedure.

**Suture of peritoneum and rectus sheath**

**Excising the whole trocar site and suturing layer by layer.**

**Clean trocar site with povidone iodine**

**Abundant peritoneal wash**

**Frequent removal of instruments can increase chance for tumour infiltration**

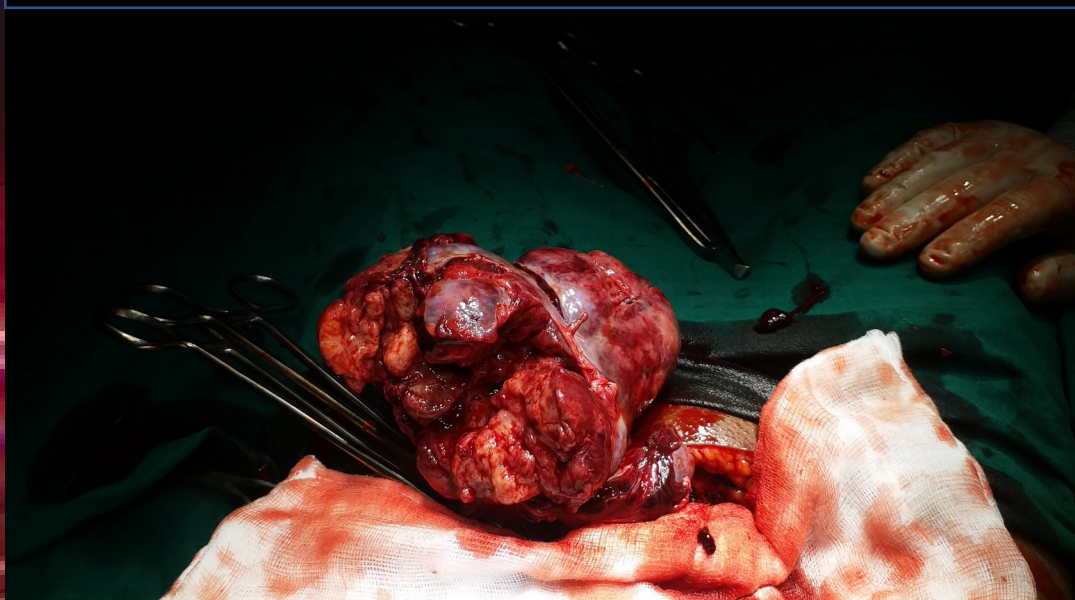


Use of gasless laparoscopy: Difficult exposure, 2 day bowel preparation.

Avoid sudden deflation of peritoneum to avoid chimney effect.

Use endobags to retrieve all suspected ovarian tumours.

Remove endobag without morcellation through minilap or colpotomy wound



**Granulosa cell tumour 15cm big.**

**Came as twisted solid ovarian tumour in a 15 year old girl. Laparoscopy not possible.**

50 year old postmenopausal woman with a  
6 cm ovarian cyst with solid areas;  
normal doppler,  
CA-125 45IU,

**LAVH with BSO done: Copious wash given: No trocar wash.**

**HP :Transitional cell tumour.  
CT scan 1 week later showed "recurrence" 7cm nodes!!**

**Post chemotherapy, patient is hale and hearty, 5 years later.**

**In several studies have found that early stage ovarian cancer can be safely treated laparoscopically.**

Safe in masses < 5cm: Gynecologic Oncology 94 (2004) 387–392

**Safe:** Roberto Tozzi, Christhardt Köhler, Gynecologic Oncology 93 (2004) 199–203

**Safe:** Gynecologic Oncology 135 (2014) 428–434

**80 year old lady with advanced cancer ovary diagnosed on CT scan.**

**Ascites present.**

**Aspiration cytology did not yield cells.**

**Severe left ventricular dysfunction present. Only 40% ejection fraction seen.**





**HP: Malignant cells  
from secondaries,  
Typing cannot be done**

Laparotomy would have been a morbid  
procedure.



**22 year old Unmarried girl comes with uniilateral**

**6cm Ovarian cyst with solid components.**

**CA 125- 65 IU**

**Minimal ascites**

**Abdominal Koch's**

**Laparotomy would have been a morbid procedure**

## Faggoti score feasibility of laparoscopic surgery

Massive peritoneal involvement &/or military pattern of distribution for peritoneal carcinomatosis:

Wide spread infiltrating carcinomatosis, &/or confluent nodules to the most part of the diaphragmatic surface

Large infiltrating nodules &/or an involvement of the root of the mesentery

Tumour diffusion along the omentum up to the large stomach curvature

Possible large/small bowel resection

Obvious neoplastic involvement of gastric wall

Liver surface lesions larger than 2 cm

**Score 2  
Each.**

**Advanced epithelial ovarian cancer**

**Staging laparoscopy (S-LPS)**

**Laparoscopic predictive index value <8**

**Laparoscopic predictive index value > 8**

**Optimal cytoreduction**

**Chemotherapy 4 cycles**

**Progression**

**Stable/Partial response**

**Complete response**

**B line chemo.**

**(S-LPS)**

**IDS**

**PIV <4**

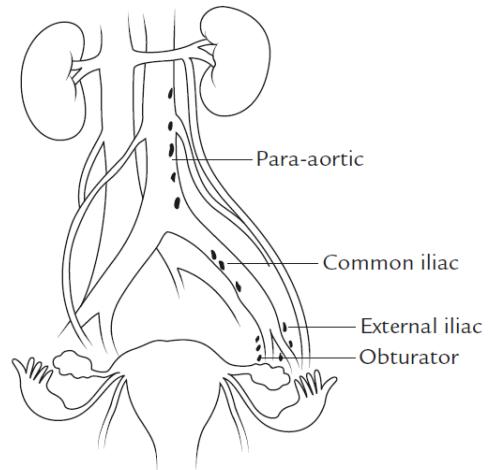
**PIV ≥4**

**IDS**

**Standard CT/  
B line Chemo**



**Reassessment laparoscopy in ovarian cancer with high CA 125, no clinical evidence.**



**Laparoscopic Radical hysterectomy with pelvic lymphadenectomy**

**Complete surgery for ovarian cancer including aortic dissection.**

**Laparoscopic pelvic exenteration for cervical cancer relapse**

# Laparoscopic assisted vaginal trachelectomy for women who want to preserve their fertility

**Desire and ability to conceive**

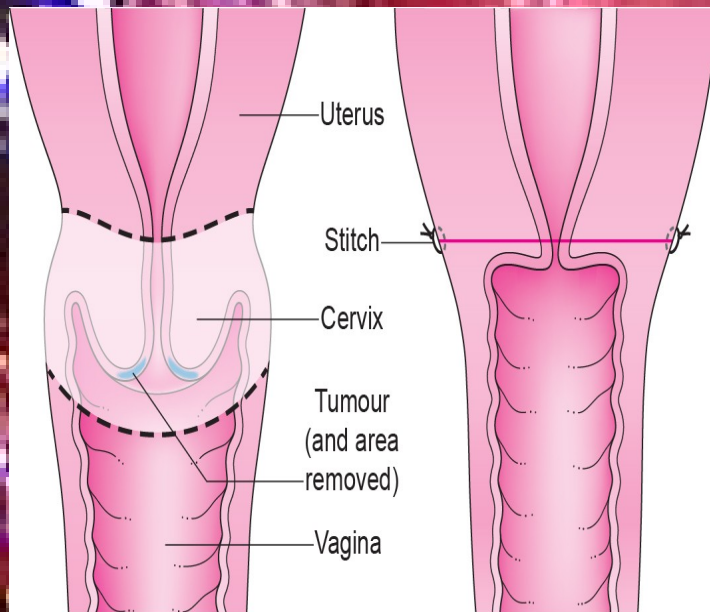
**FIGO stages 1A2 to IB with lesions <2cm**

**Limited endocervical involvement on colposcopy**

**No positive lymph nodes**

**No lymphovascular space invasion**

**Comprehension of the procedure**





TODAY I WILL DO WHAT  
OTHERS **WON'T**

SO TOMORROW I CAN DO  
WHAT OTHERS **CAN'T**

## Laparoscopic Intraperitoneal Hyperthermic Chemotherapy (LIPHC) in the treatment of malignant ascites

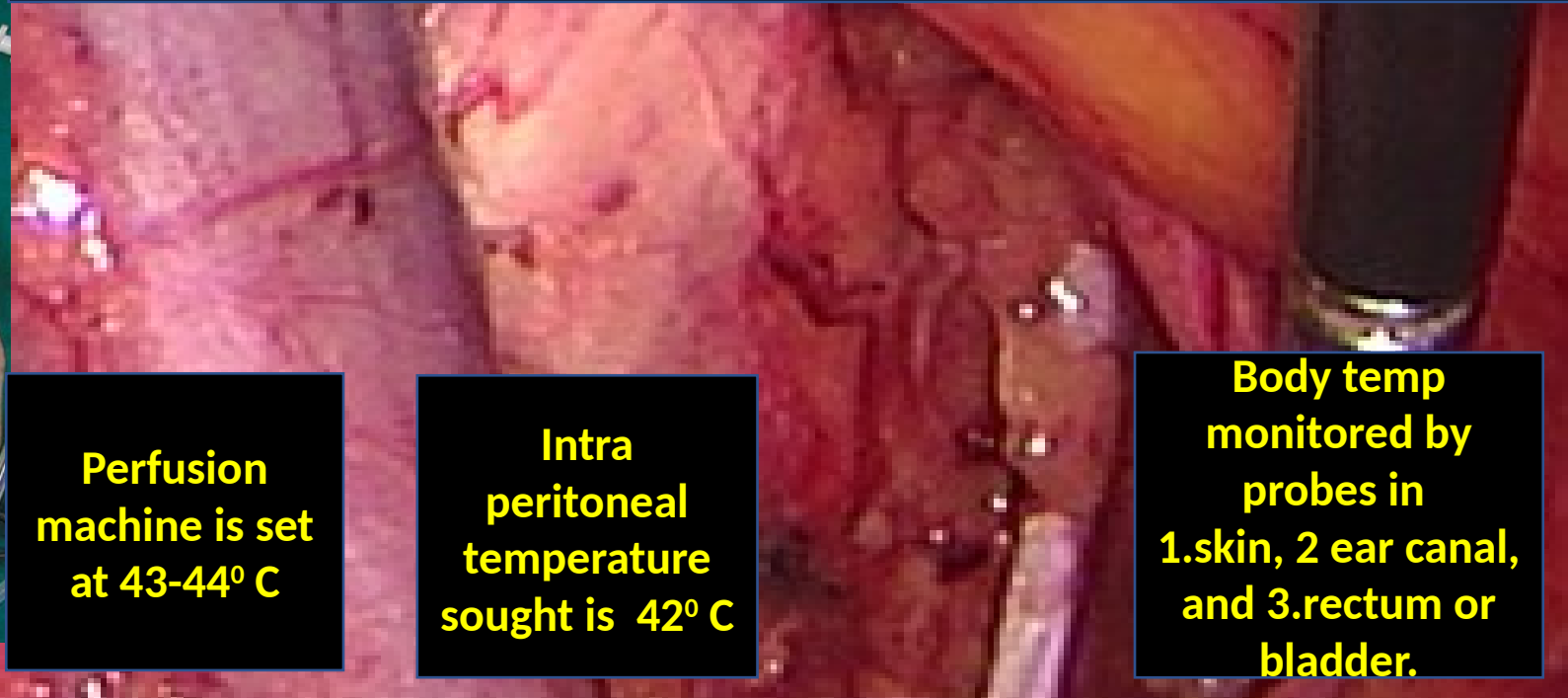
Suction drains placed in iliac fossae and subdiaphragmatic space using a grasper.

Ascites sucked out. Laparoscope inserted





The 5-mm trocars were removed and an infusion trocar was placed directly through the 10-mm trocar site where the camera had been inserted



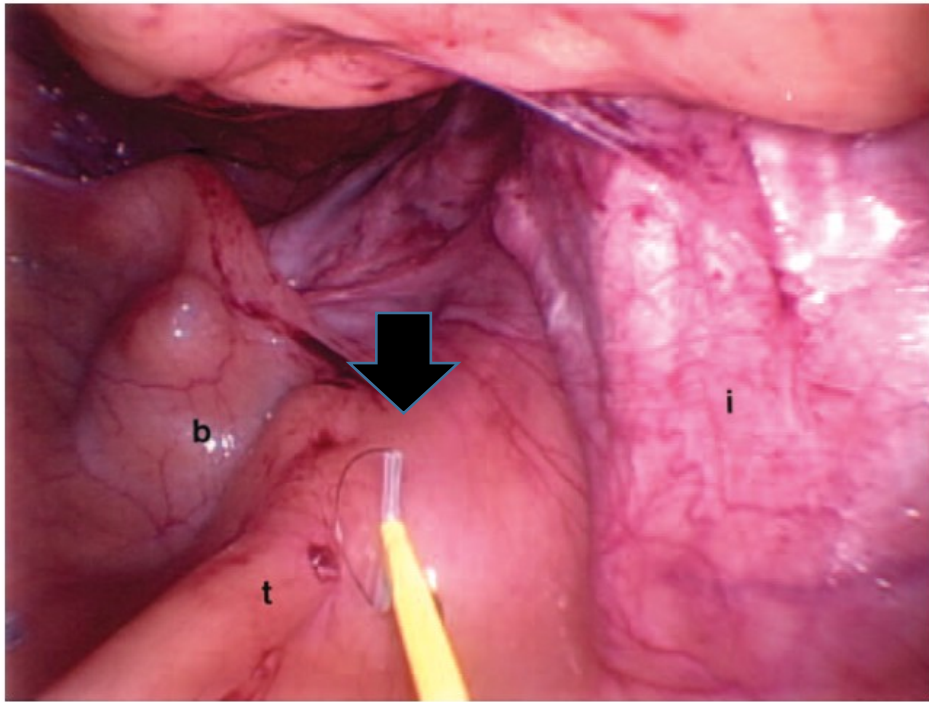
Perfusion machine is set at 43-44° C

Intra peritoneal temperature sought is 42° C

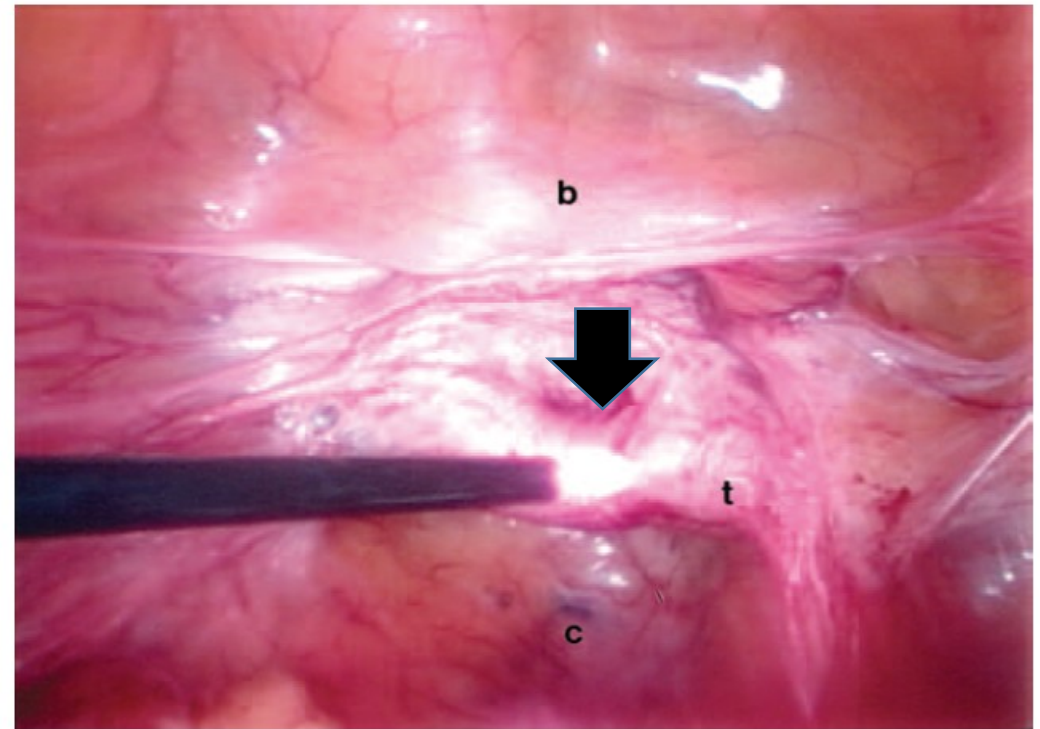
Body temp monitored by probes in 1.skin, 2 ear canal, and 3.rectum or bladder.

To allow the chemotherapy solution to distribute itself to the whole peritoneal surface, the operating table tilt is changed at 15-min intervals during perfusion.

Laparoscopic debulking with electrosurgical loop excision procedure and argon beam coagulator at recurrence in patients with previous laparotomy debulking



**Figure 1** Laparoscopic LEEP excision of tumor on rectosigmoid. *b* = Bladder; *t* = tumor on rectosigmoid; *i* = iliac vessels.



**Figure 2** Laparoscopic ABC of tumor on vagina. *b* = Bladder; *t* = tumor on vagina; *c* = cul-de-sac.

The background image shows a surgical site with a chest wall incision. The incision is a 2-cm cut in the fifth intercostal space. The thoracoscopic view shows the internal thoracic cavity with various structures and instruments visible.

**Video-assisted thoracoscopic surgery before planned abdominal exploration in patients with suspected advanced ovarian cancer and moderate to large pleural effusions**

**A 2-cm chest wall incision was made in the fifth intercostal space on the side of the effusion. The thoracoscope was introduced and biopsies of suspicious lesions were performed through the single incision.**

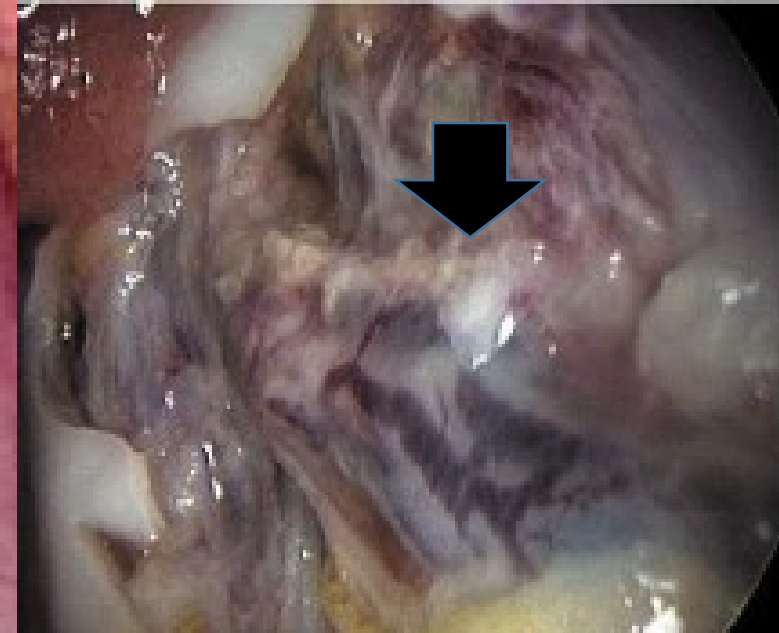
**After VATS, all patients had a chest tube placed through the incision, and those with malignant effusions underwent talc pleurodesis either intraoperatively or postoperatively.**

# Ovarian strip transplantation

Ovarian strips are cryopreserved before chemotherapy.



Ovarian fossa is prepared.



Transplantation done 7 days later.