

ENDOMETRIAL CANCER

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Endometrial ca

Fourth most common ca after breast, lung , and colorectal ca.

The lifetime risk of developing uterine cancer is 2.6 percent .

The average age of diagnosis of uterine cancer in the United States is 61 years old

Endometrioid histology accounts for most cases (80%) , The remaining 20% of cases consist of nonendometrioid.

It usually has a good prognosis.

2 different clinicopathological sub types:

- Type 1:
 - E2 dependent, endometrioid
 - Average age 63
 - 73% confined to the uterus.
- Type 2:
 - Non E2 dependent, predominantly sero pap, ccc, carcinosarcoma. Grade 3 endometroid.
 - Average age 67 yrs
 - 50 % of pt present with metastasis

Risk factors

unopposed estrogen

postmenopausal (median age at diagnosis is 61 years)

nulliparity

early menarche, late menopause

Obesity, diabetes, HTN

tamoxifen

Tamoxifen

potent antiestrogenic agent which compete with estrogen for binding sites in breast and other tissues, but not in the uterus.

Increases the risk of endo. Ca by 2-3 folds.

Changes are:

- Cystic glandular dilatation
- Stromal edema
- Myometrial hyperplasia and edema

Hyperplasia

proliferation of endometrial glands resulting in a greater gland-to-stroma ratio.

The glandular pattern can be either simple or complex with or without nuclear atypia.

- Simple hyperplasia without atypia 1 %
- Complex hyperplasia without atypia 3 %
- Simple atypical hyperplasia 8 %
- Complex atypical hyperplasia 29 %

Hyperplasia

Treatment:

- Hormonal management – Progestins are the usual therapy, since they oppose the effect of estrogen on the endometrium.
- Hysterectomy.

Hyperplasia

EIN:

- Used in any lesion with cytologic atypia
- Only 50% respond to MPA
- Concurrent endo ca 40%

Diagnosis and Workup

Most patients (90%) with endometrial carcinoma have abnormal vaginal bleeding,

Hysteroscopy and D+C = GOLDEN STANDARD

Endometrial sample:

- 10 % false negative rate
- So any symptomatic patient with –ve biopsy = HYSTEROSCOPY + D+C

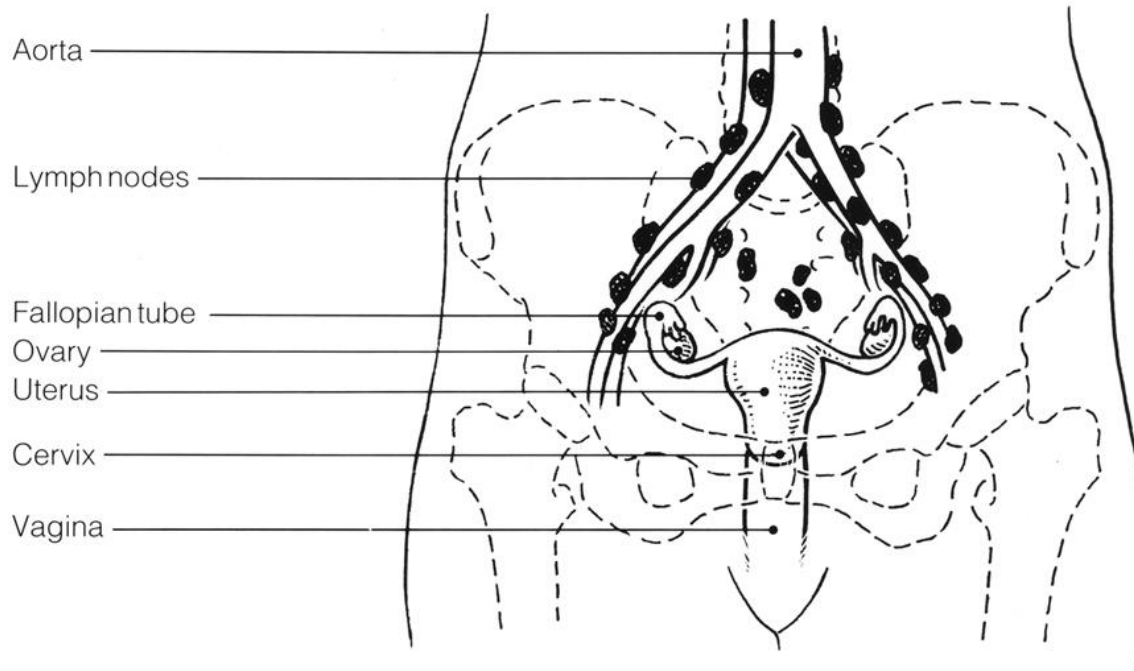
US,CT ,MRI ,Colonoscopy ,Ca 125.

Treatment

Total extrafascial hysterectomy with bilateral salpingo-oophorectomy with pelvic and para-aortic lymph node dissection is the standard staging procedure for endometrial carcinoma.

Staging can be performed via a minimally invasive route or laparotomy.

Female Genital System



FIGO 2010

Carcinoma of the Endometrium

- IA Tumor confined to the uterus, no or $< \frac{1}{2}$ myometrial invasion
- IB Tumor confined to the uterus, $> \frac{1}{2}$ myometrial invasion
- II Cervical stromal invasion, but not beyond uterus
- IIIA Tumor invades serosa or adnexa
- IIIB Vaginal and/or parametrial involvement
- IIIC1 Pelvic node involvement
- IIIC2 Para-aortic involvement
- IVA Tumor invasion bladder and/or bowel mucosa
- IVB Distant metastases including abdominal metastases and/or inguinal lymph nodes

Grade

G 1: 5% or less of solid pattern

G 2: 6-50%

G 3: more than 50 %

Poor prognosis

Grade 3

Seropap, ccc, carsinosarcoma

+ LVI

+ peritoneal cytology

T size

H . Receptors

ER + PR levels are inversely proportional to the histologic grade.

Pts with + ER / PR or both , have better Px.

HER 2 NEU

Adjuvant therapy

Decisions about adjuvant therapy for endometrial carcinoma are based upon clinicopathologic factors (eg, grade, tumor size, and patient's age).

Its usually brachytherapy, EBRT +/- chemotherapy.

Adjuvant therapy

CLINICAL FINDINGS

ADVERSE RISK FACTORS^m HISTOLOGIC GRADE/ADJUVANT TREATMENT^{b,n}

				G1	G2	G3
Completely surgically staged: Stage I	Stage IA (< 50%) myometrial invasion	Adverse risk factors not present	→	Observe	Observe or Vaginal brachytherapy	Observe or Vaginal brachytherapy
		Adverse risk factors present	→	Observe or Vaginal brachytherapy	Observe or Vaginal brachytherapy and/or pelvic RT (category 2B for pelvic RT)	Observe or Vaginal brachytherapy and/or Pelvic RT
	Stage IB (≥ 50%) myometrial invasion	Adverse risk factors not present	→	Observe or Vaginal brachytherapy	Observe or Vaginal brachytherapy	Observe or Vaginal brachytherapy and/or Pelvic RT
		Adverse risk factors present	→	Observe or Vaginal brachytherapy and/or Pelvic RT	Observe or Vaginal brachytherapy and/or Pelvic RT	Pelvic RT and/or Vaginal brachytherapy ± chemotherapy ^{o,p} (category 2B for chemotherapy) or Observe (category 2B)

Adjuvant therapy

CLINICAL FINDINGS

HISTOLOGIC GRADE/ADJUVANT TREATMENT^{b,n,p}

G1

G2

G3

Completely
surgically staged:
Stage II^{q,r}

Vaginal brachytherapy
and/or pelvic RT

Pelvic RT
+ vaginal brachytherapy

Pelvic RT
+ vaginal brachytherapy
± chemotherapy^{o,p}
(category 2B for chemotherapy)

Completely
surgically staged:
Stage IIIA

Chemotherapy ± RT
or
Tumor-directed RT
± chemotherapy
or
Pelvic RT
± vaginal brachytherapy

Chemotherapy ± RT
or
Tumor-directed RT
± chemotherapy
or
Pelvic RT
± vaginal brachytherapy

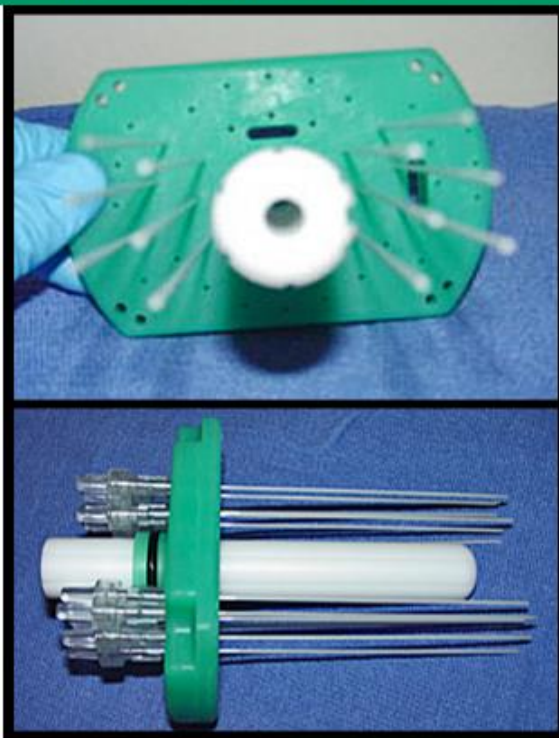
Chemotherapy ± RT
or
Tumor-directed RT
± chemotherapy
or
Pelvic RT
± vaginal brachytherapy

External beam radiation therapy



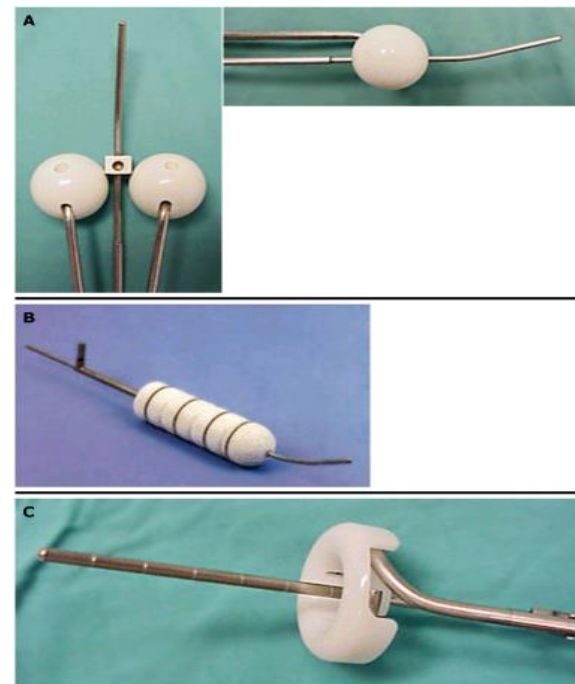
Brachytherapy

Cervical interstitial brachytherapy

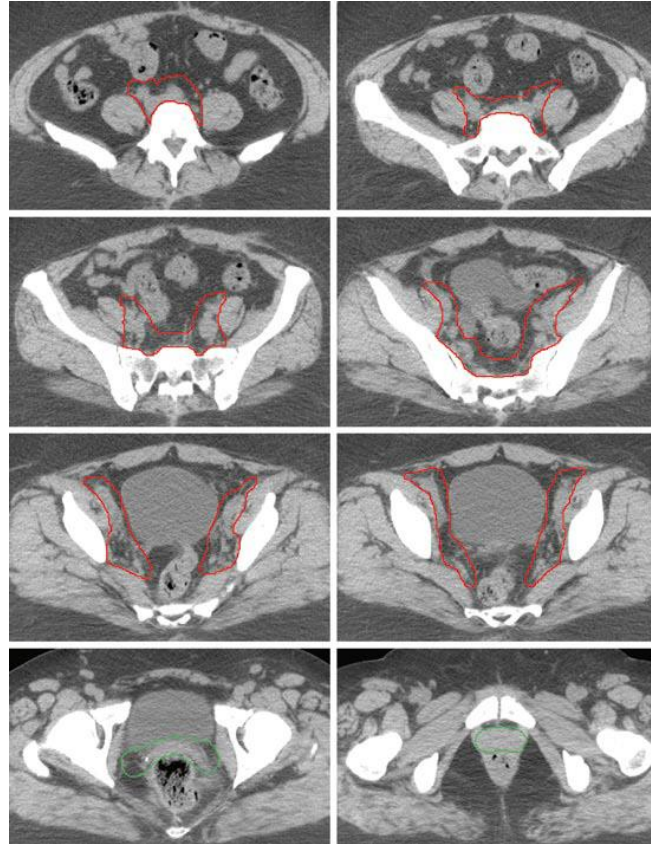


Syed-type interstitial implant used for cervical brachytherapy.
Courtesy of Kristin Bradley, MD and Derek McHaffie, MD.

High dose rate (HDR) cervix brachytherapy applicators



Intrauterine tandem with (A) vaginal ovoids, with (B) vaginal cylinders, or with a (C) vaginal ring.
Courtesy of Kristin Bradley, MD and Derek McHaffie, MD.



COMPLICATIONS:

- TAH/BSO complications – mortality (<1%), infection, wound dehiscence, fistula, bleeding
- Frequency and urgency of urine and/or stool
- Vaginal stenosis – use dilators
- Thrombocytopenia with WART

FERTILITY PRESERVATION

Women with low-risk endometrial carcinoma who wish to preserve fertility may be candidates for treatment with progestin therapy .

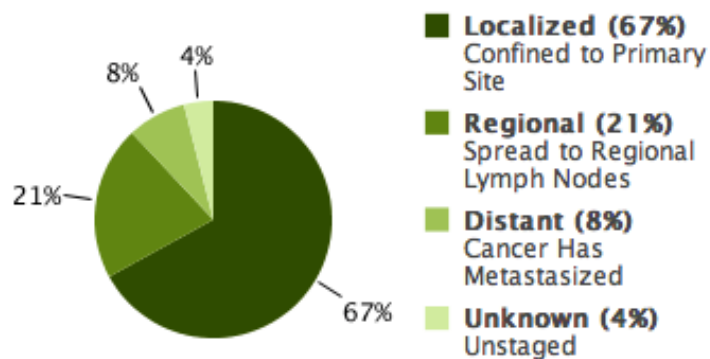
Evaluation prior to medical therapy (eg, dilation and curettage, imaging studies) is necessary to try to confirm that the lesion is confined to the uterus and is grade 1.

Survival

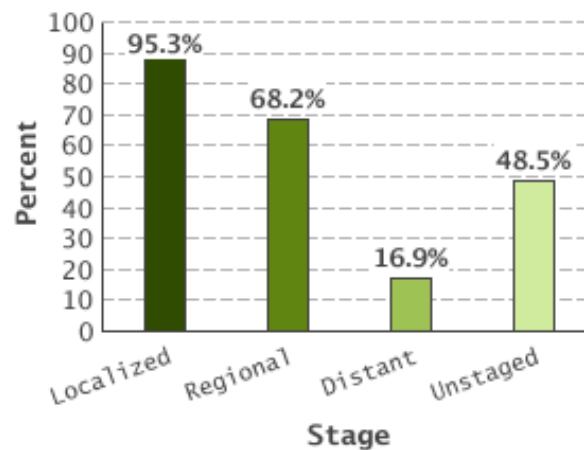
In general, the rate of five-year for stage I disease is approximately 80 to 90 percent, for stage II it is 70 to 80 percent, and for stages III and IV it is 20 to 60 percent.

Percent of Cases & 5-Year Relative Survival by Stage at Diagnosis: Endometrial Cancer

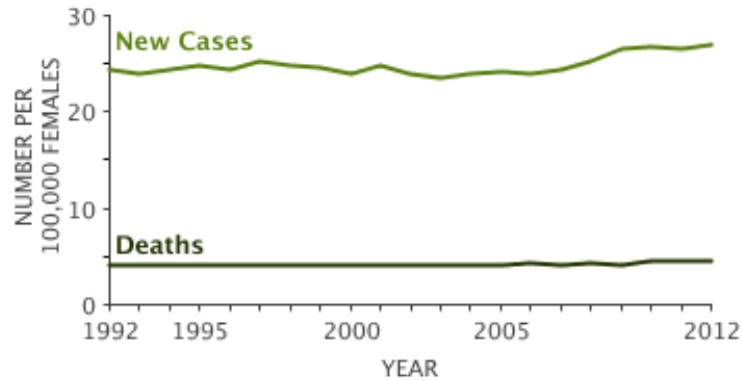
Percent of Cases by Stage



5-Year Relative Survival



Estimated New Cases in 2015	54,870
% of All New Cancer Cases	3.3%
Estimated Deaths in 2015	10,170
% of All Cancer Deaths	1.7%



Percent Surviving 5 Years
81.7%
2005-2011

Lymphadenectomy

Lymph node metastases found in about 10% of patients with endometrial cancer clinically confined to the uterus.

Lymph node evaluation is part of FIGO staging for endometrial cancer.

Lymphadenectomy

Advantages:

- Assigning patients to their proper FIGO stage.
- Useful in planning post operative treatment.

Complications:

- Prolong operative time.
- Increase blood loss.
- Injury to adjacent structures.
- Lymphocele and lymphedema.

Sentinel node (SLN)

SLN is considered the standard of care in many solid tumors (breast, melanoma, vulva).

Precise and less invasive than complete lymphadenectomy.

Allow identification of aberrant drainage sites.

Detect more metastases (ultra-staging)

Goals of SLN

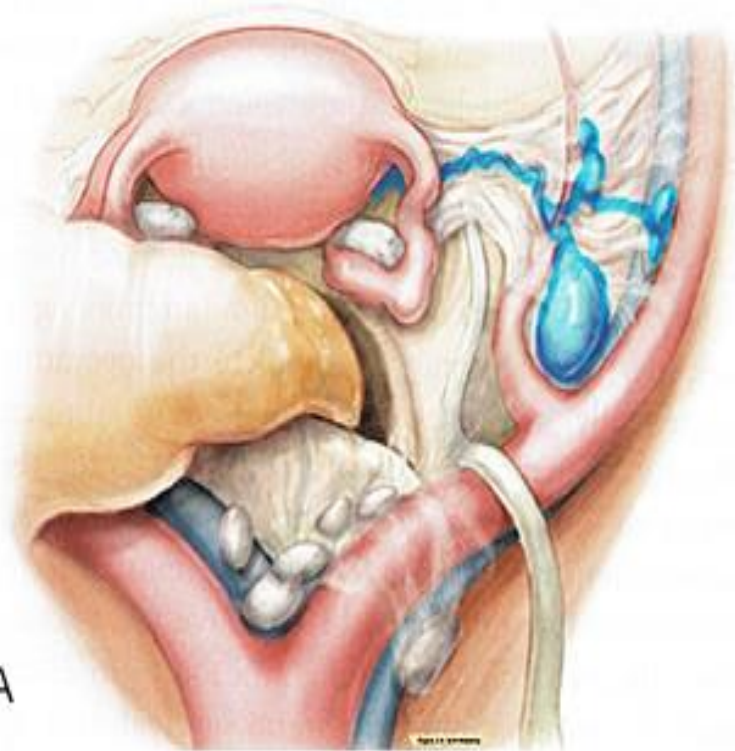
Avoid complete lymphadenectomy if SLN is negative bilaterally.

Reduce the morbidity of lymphadenectomy.

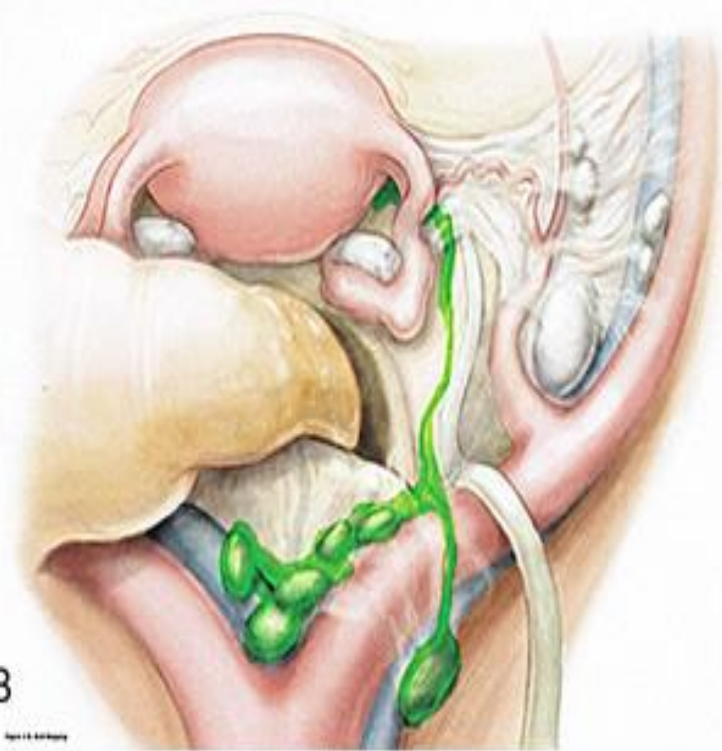
Avoid under/over treatment.

Sentinel lymph node mapping in endometrial cancer

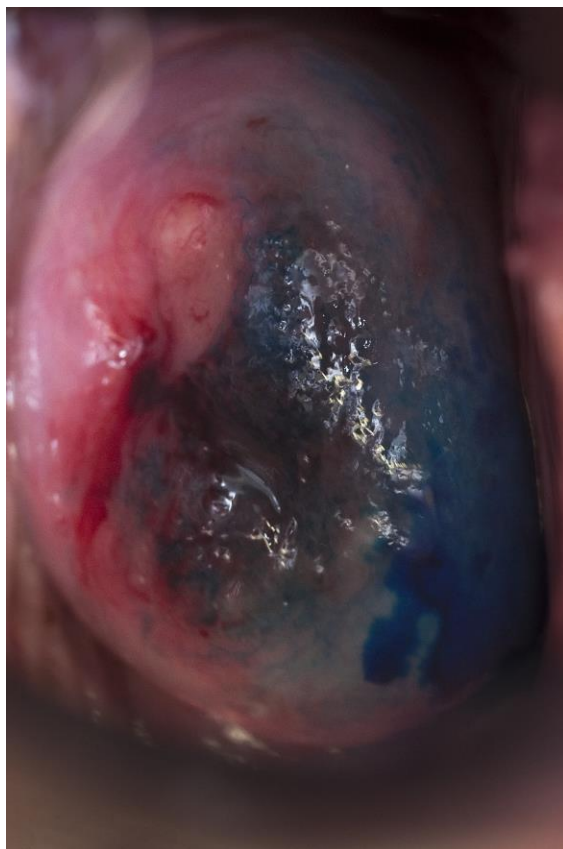
- Colometric detection with Patent Blue (PB) and/or radio-isotopic detection with Technetium (TC99) to identify SLN.
- Injection site: cervix at 3 and 9 o'clock

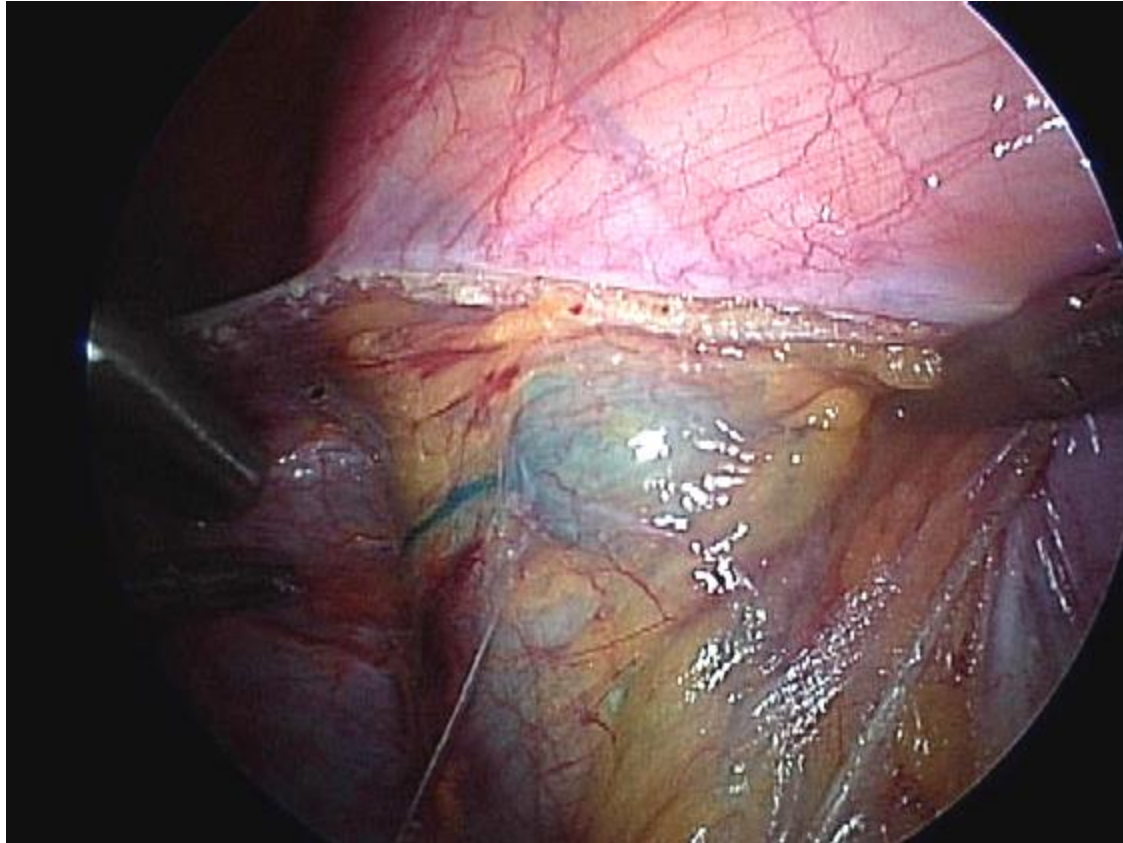


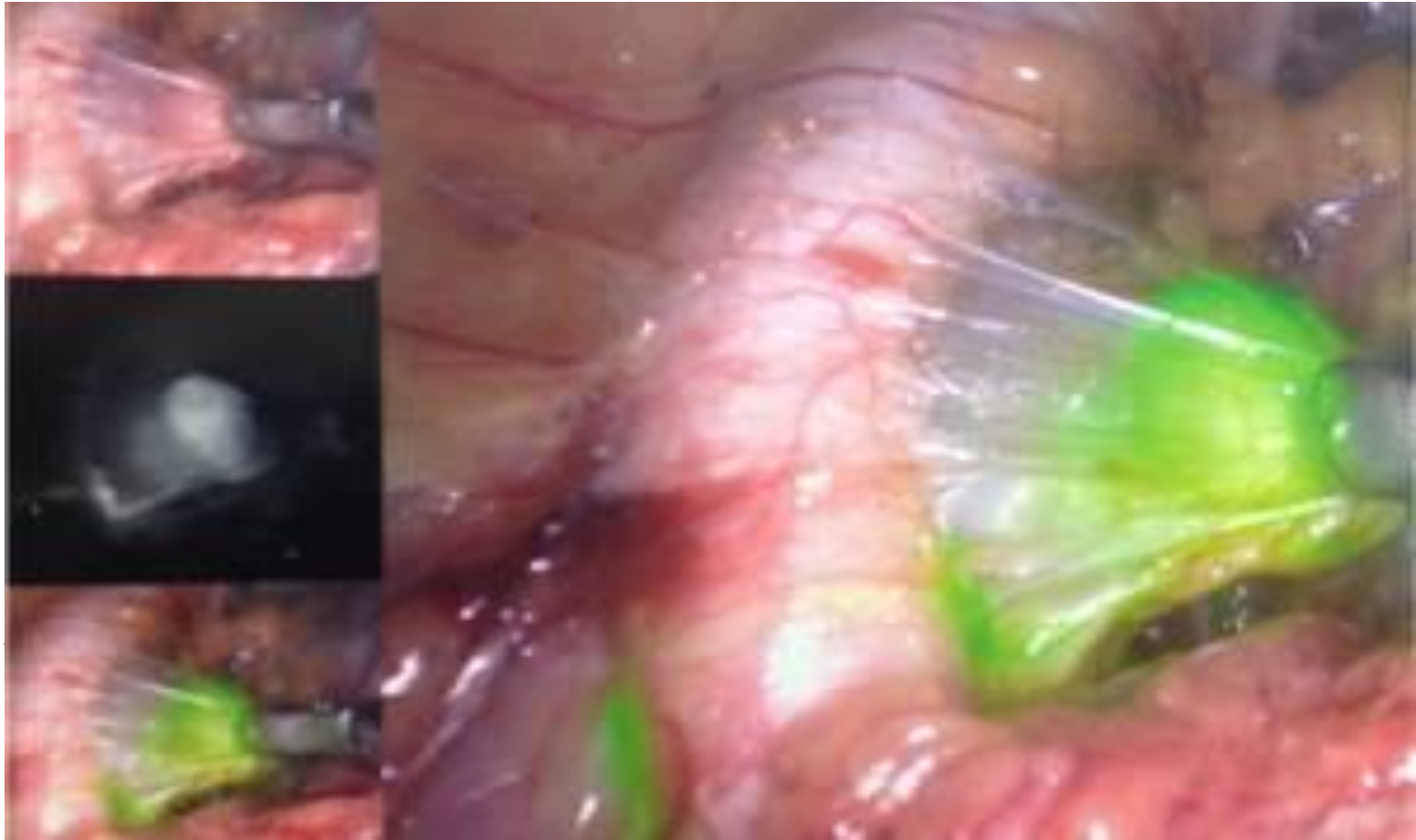
A



B







THANK YOU
