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CERVICAL CARCINOMA



Understanding Cancer

- Normally, cells grow and divide to form new cells as the body needs them. When cells grow old, they die, and new cells take their place.

Understanding Cancer

- Sometimes, this orderly process goes wrong. New cells form when the body does not need them, and old cells do not die when they should. These extra cells can form a mass of tissue called a growth or *tumor*.

Background

- Worldwide, cervical cancer is the 2nd leading cause of cancer death in women
- Squamous cell carcinoma (85%)
- Adenocarcinoma (15%)
- Risk factors for squamous cell cancer
 - Early coitarche
 - Greater than 6-8 partners
 - Cigarette smoking
 - Oral contraceptives

- Cervical cancer is most strongly associated with sexually transmitted HPV infection
- During the sexual lifespan of a woman, approximately 70% will have been exposed to HPV
- HPV subtypes are classified into high and low risk groups

Clinical Pictures

- Asymptomatic
- Vaginal Bleeding
 - Post coital
 - Intermenstrual spotting
 - Irregular or Postmenopausal bleeding
- Discharge P/V
- Pain referred to flanks
- Dysuria, hematuria, rectal bleeding
- Massive Haemorrhage, uraemia

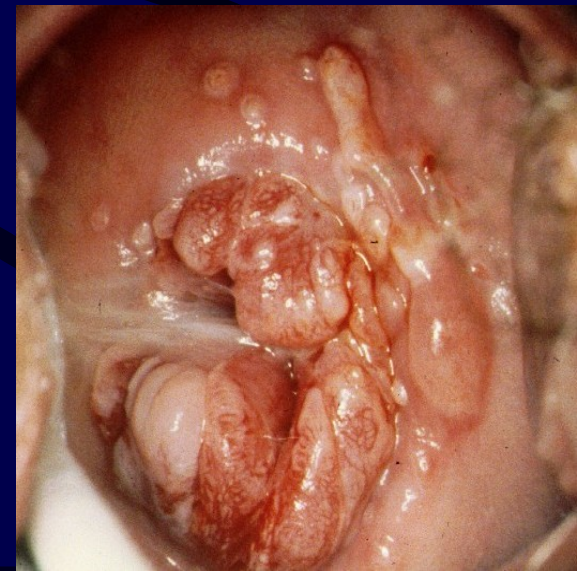
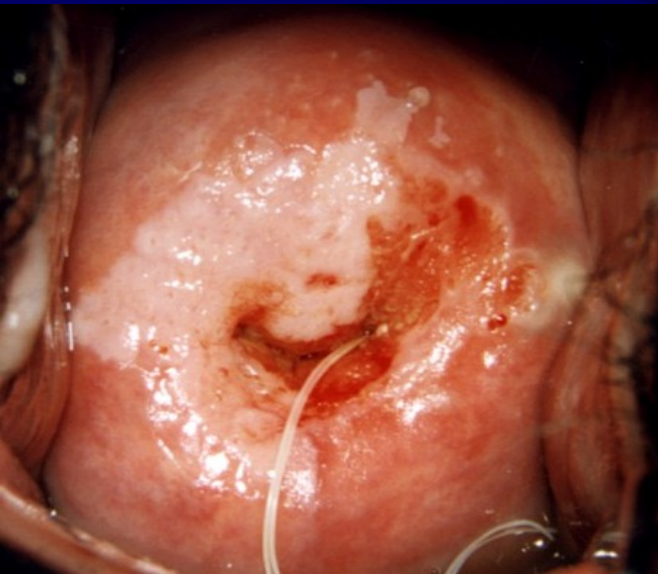
Diagnosis

1- History.

- Many women are asymptomatic .
- Presented with abnormal routine cx smear
- **Complain of abnormal vaginal bleeding**
- I M bleeding
 - post coital bleeding
 - perimenopausal bleeding
 - postmenopausal bleeding
 - blood stain vaginal discharge

Examination:

- PV exam using cuscu's speculum
- nothing is found in early stage .
- Mass ,ulcerating fungating in the cervix
- P/V P/R is very helpful.



Investigations

- **Physical Examination**

- Lymph node examination
- Per Vaginum
- Bimanual rectovaginal examination
- PAP SMEAR

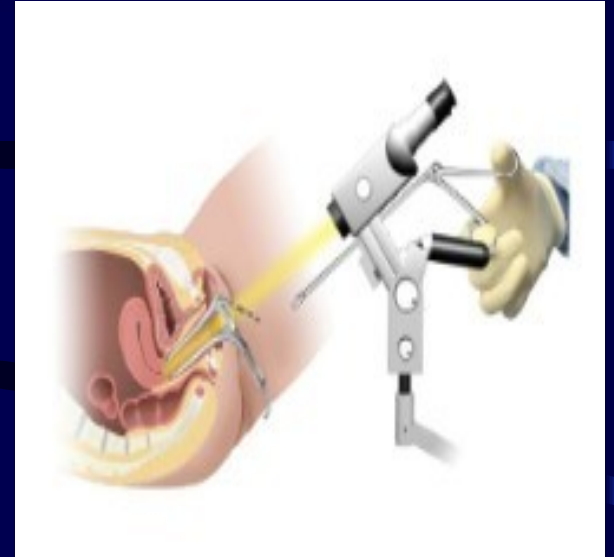
- **Radiology Colposcopy**

- **IVP CX biopsy**

- Barium Enema
- X Ray Chest
- Skeletal X Ray

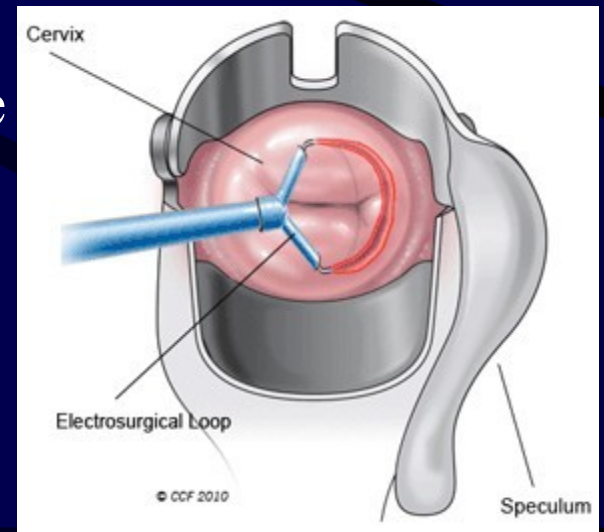
Cervical Biopsy

- Punch biopsy



- LEEP

- Outpatient procedure
- Diagnosis and therapy at same time
- Main side effect – secondary haemorrhage



Conization

- Cold knife
- Laser
- If cut margins free from cancer, then almost 100% disease free follow-up

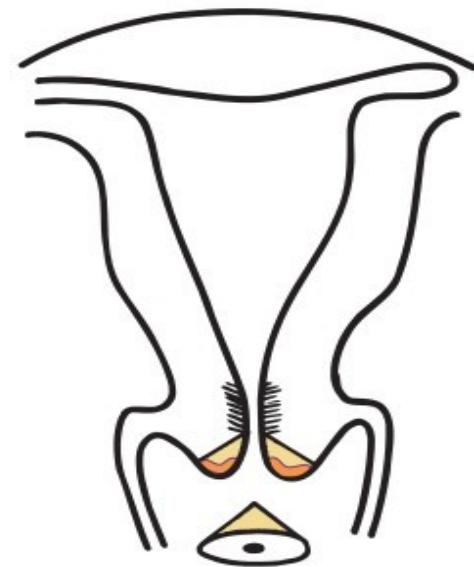
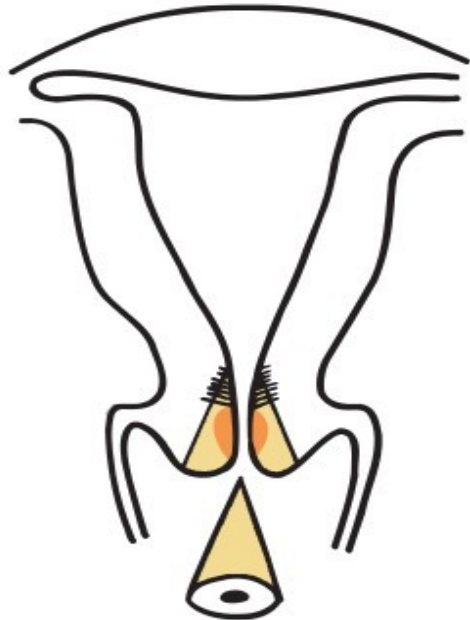


Figure 1-11 Cone biopsy for cervical intraepithelial neoplasia

Table 1-13 MAJOR COMPLICATIONS OF CONIZATION

Immediate

Delayed

Hemorrhage

Bleeding (10–14 days after operation)

Uterine perforation

Cervical stenosis

Anesthetic risk

Infertility

In pregnancy

Incompetent cervix

Rupture of membranes

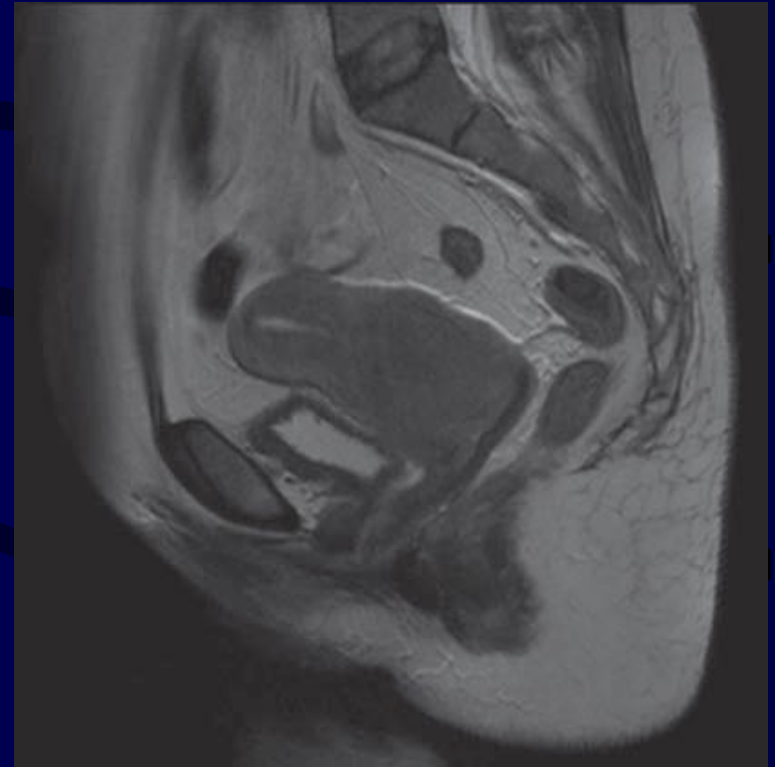
Increased preterm delivery

Premature labor

(low birthweight)

CT and MRI

- Evaluation of lymphnodes, liver, urinary tract and bony structures
- Can detect only changes in ~~size of nodes~~, < 1cm considered as positive



Patterns of spread

- **Direct invasion** cervical stroma, vagina, and parametrium.
- **Lymphatic spread** pelvic and then par aortic lymph nodes
- **Hematogenous spread** such as lungs, liver, and bone

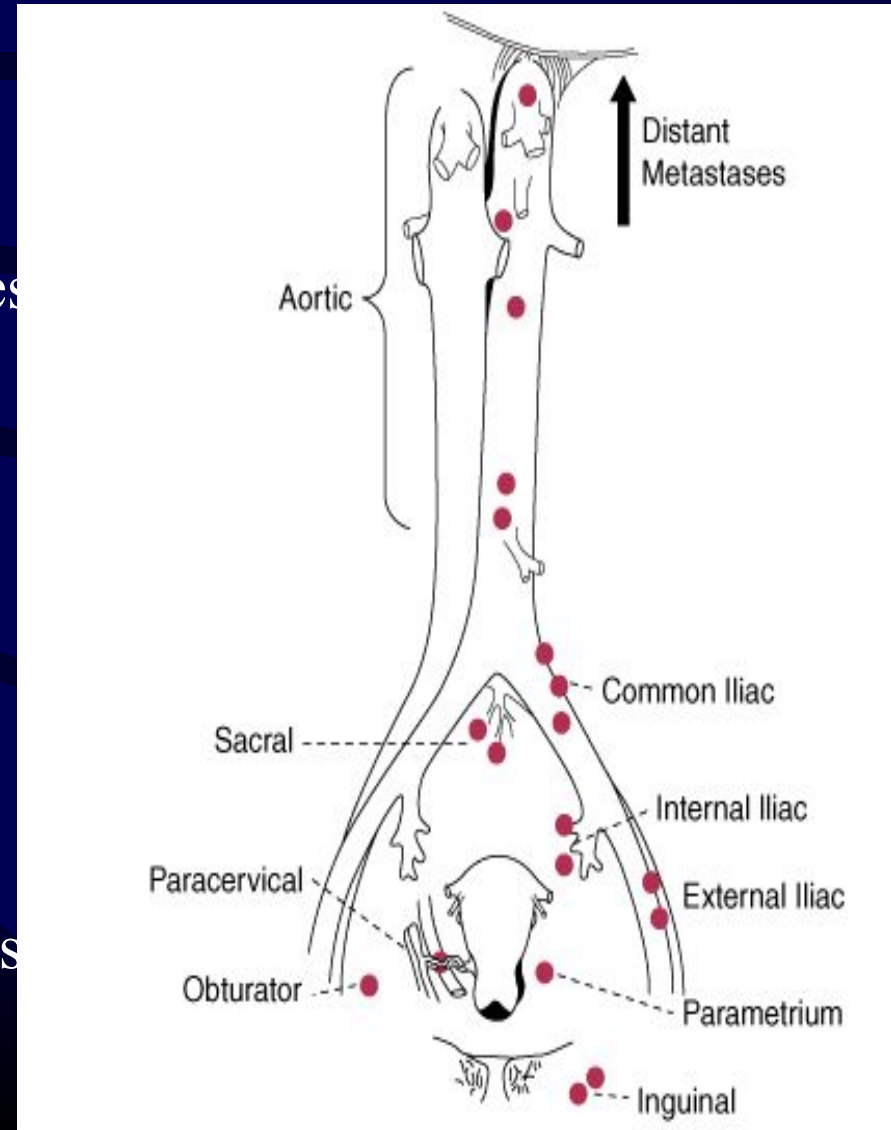
Lymphatic Spread

– Primary Group

- Parametrial nodes
- Paracervical/ureteral nodes
- Obturator nodes
- Hypogastric nodes
- External iliac nodes
- Sacral nodes

– Secondary Group

- Common Iliac nodes
- Inguinal nodes (deep and superficial)
- Periaortic nodes



Cervical carcinoma staging

- Staging is clinical
- FIGO staging
- Based on EUA, cystoscopy +/- sigmoidoscopy
- Does NOT include MRI

FIGO Staging

- **Stage I – carcinoma confined to cervix**
 - **IA:** invasive carcinoma diagnosed microscopically. Stromal invasion depth upto 5 mm and width less than 7 mm
 - IA1 – stromal invasion <3mm depth and <7mm width
 - IA2 – stromal invasion 3-5 mm and <7mm width
 - **IB:** clinically visible lesion confined to the cervix
 - IB1 – lesion <4 cm or less
 - IB2 – lesion >4 cm

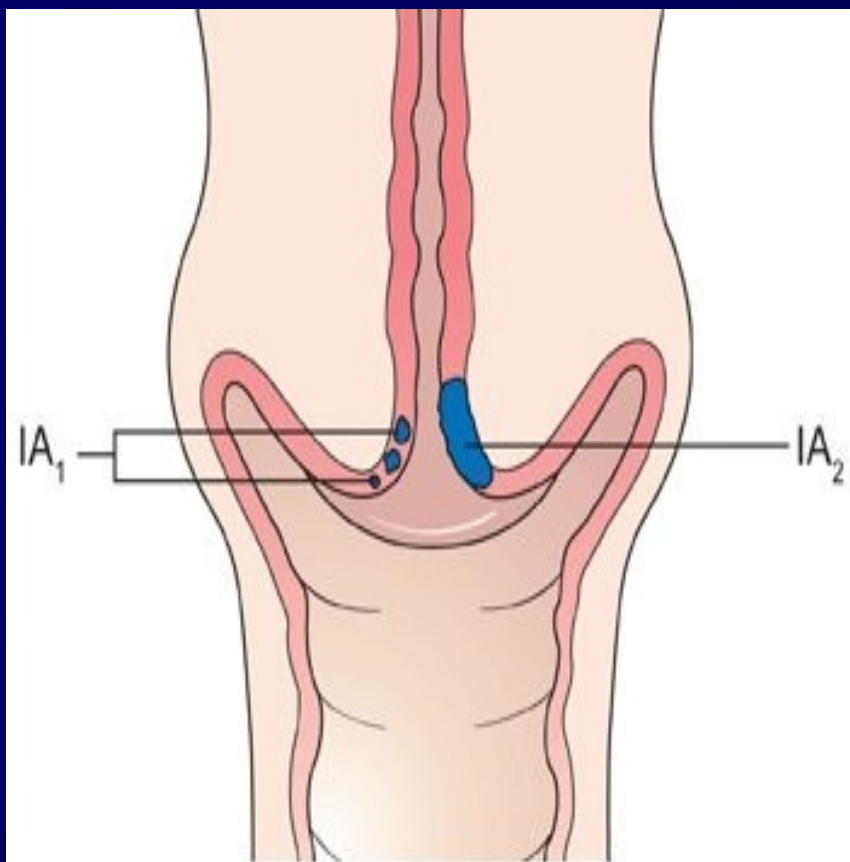


Diagram showing stage 1A cervical cancer
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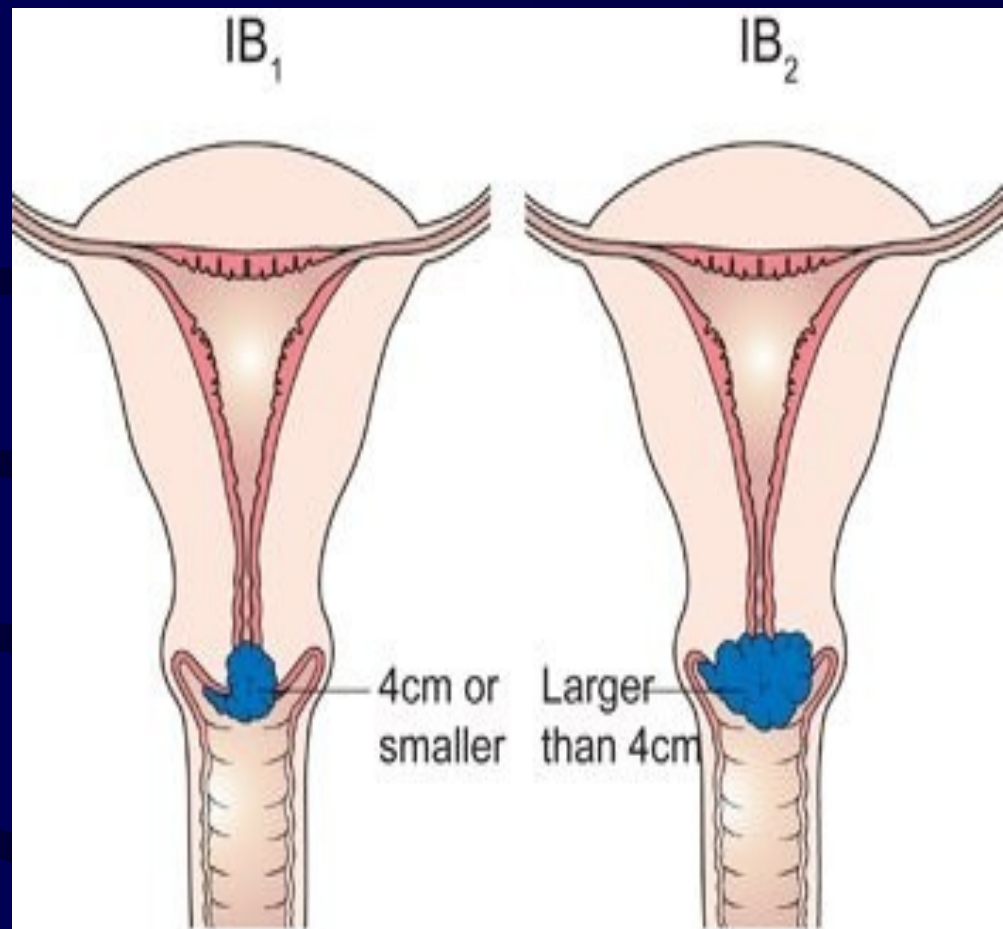


Diagram showing stage 1B cervical cancer
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Stage II – carcinoma invading beyond uterus but not to pelvic wall or lower 1/3 of vagina

- IIA – Tumour without parametrial invasion
 - IIA1 – lesion < 4 cm
 - IIA2 – lesion > 4 cm
- IIB – Tumour with parametrial invasion

Cancer has grown into the top part of the vagina

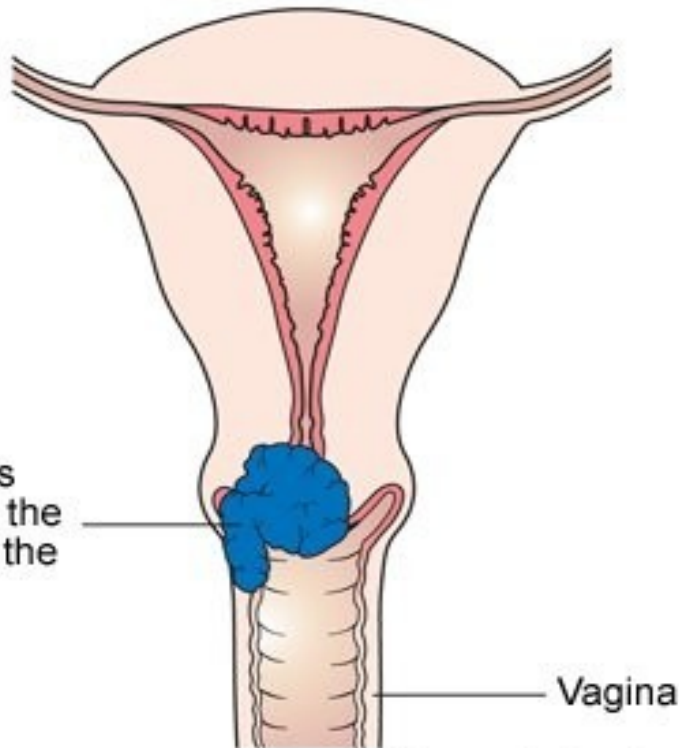


Diagram showing stage
2A cervical cancer
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Cancer has grown into the tissues around the cervix

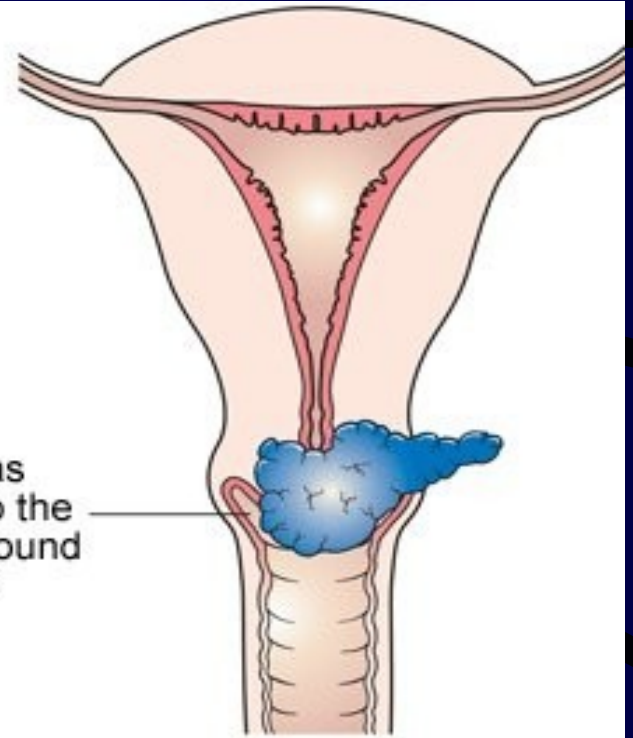
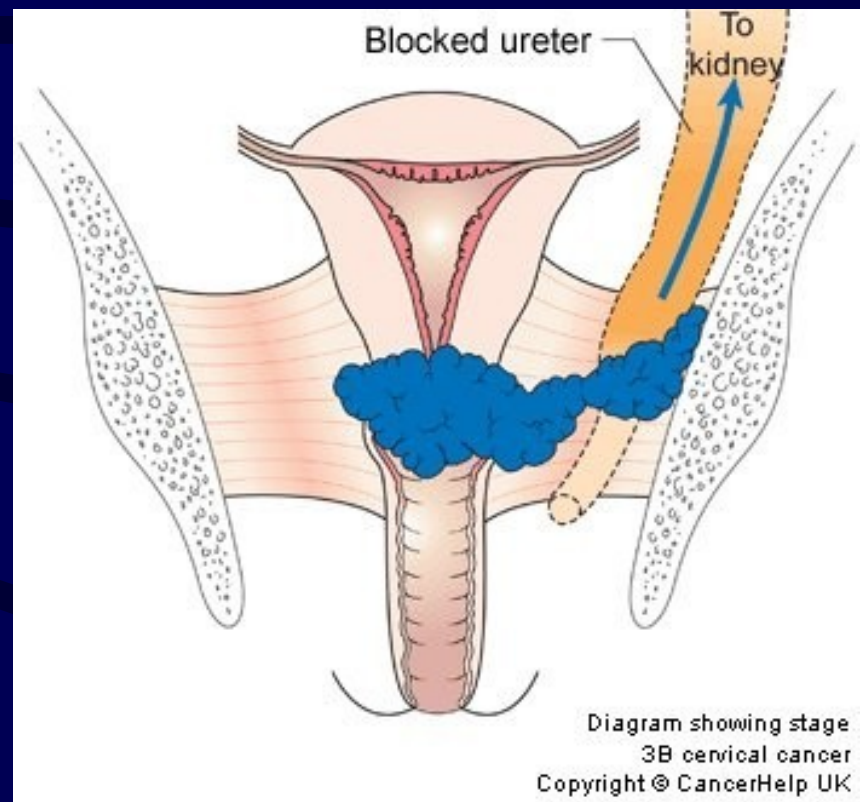
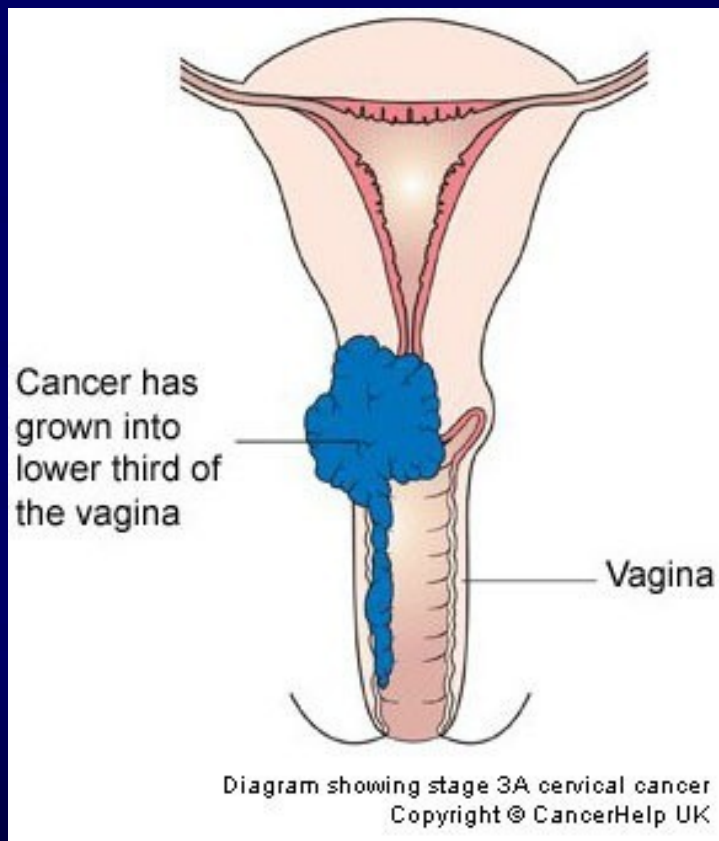


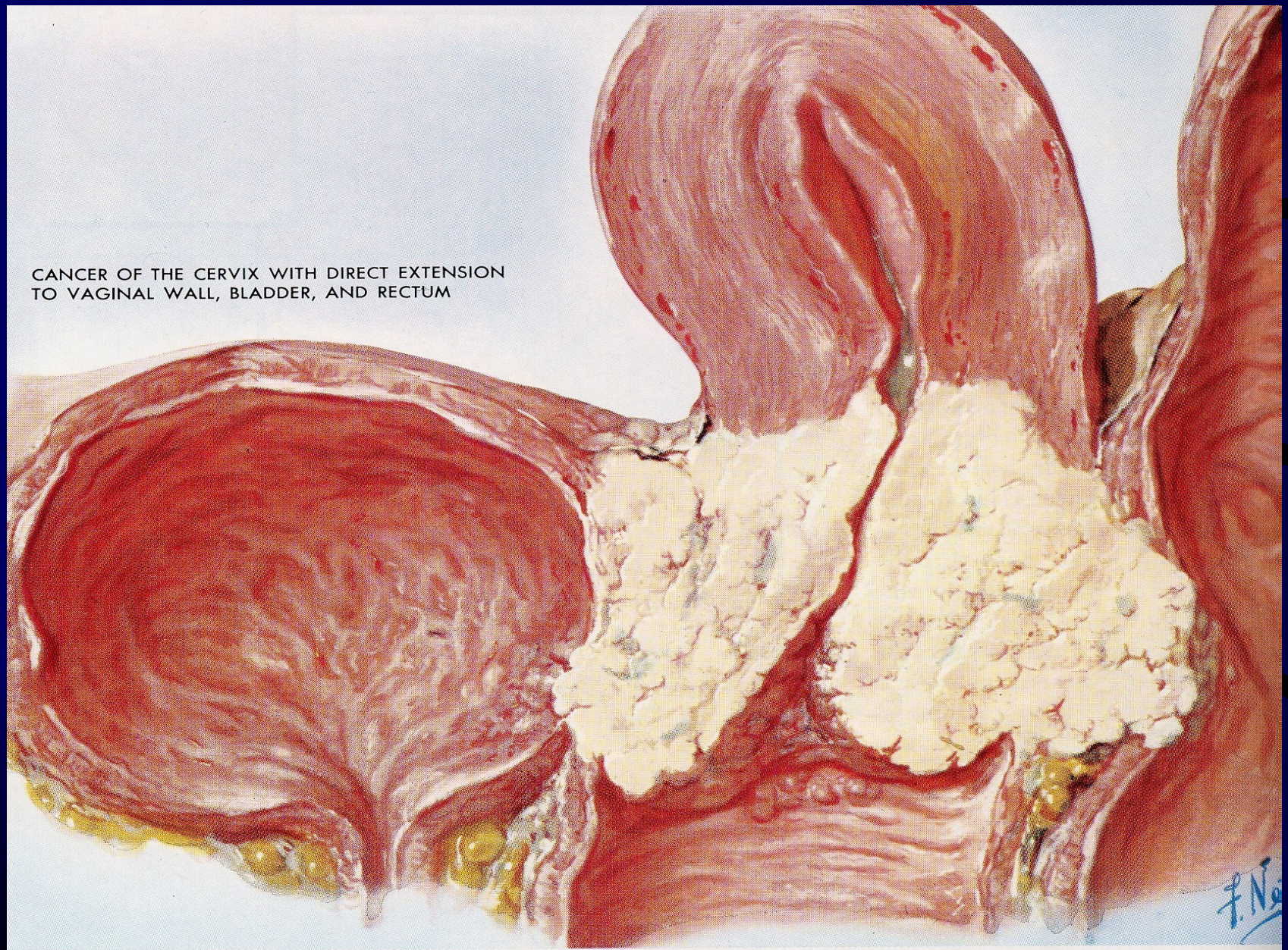
Diagram showing stage
2B cervical cancer
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Stage III – tumour extending to lateral pelvic wall/lower third of vagina

- causing hydronephrosis or non-functioning kidney
 - IIIA – Tumour involves lower 1/3 of vagina, no extension to pelvic wall
 - IIIB – Tumour extends to pelvic wall or causing hydronephrosis/non-functioning kidney



CANCER OF THE CERVIX WITH DIRECT EXTENSION
TO VAGINAL WALL, BLADDER, AND RECTUM



Stage IV

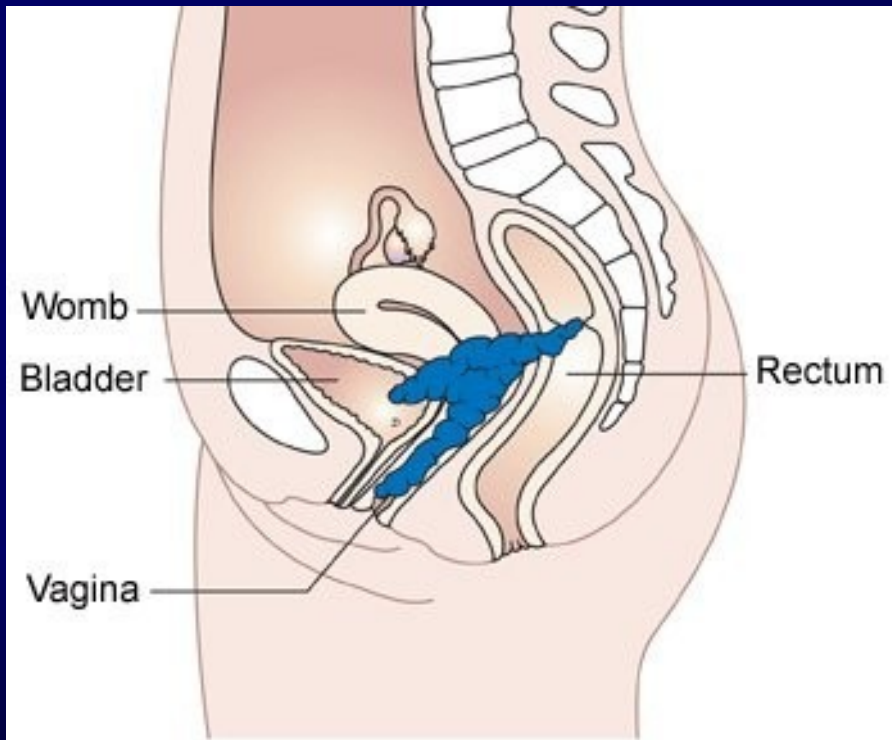


Diagram showing stage
4A cervical cancer
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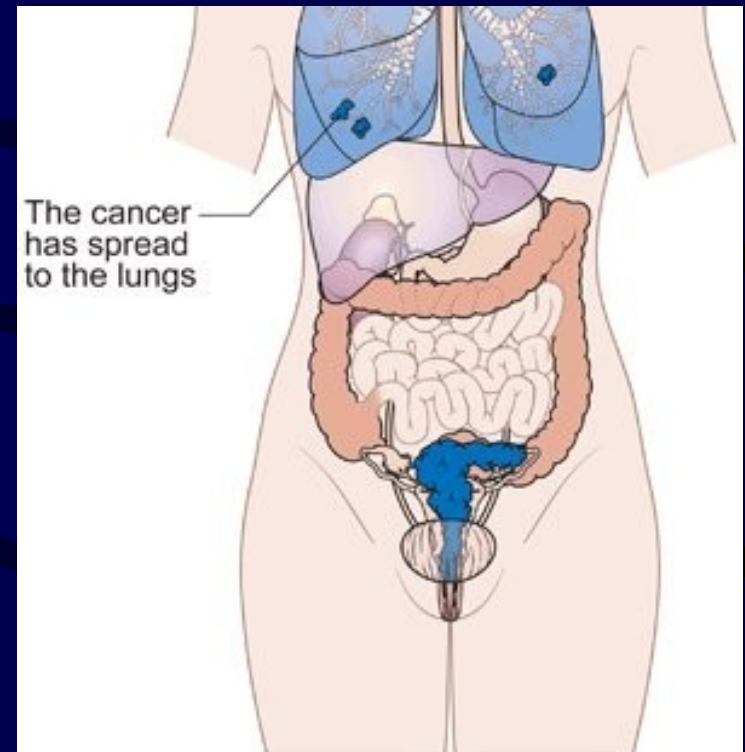


Diagram showing stage
4B cervical cancer
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The choice of treatment will depend on

- Fitness of the patients
- Age of the patients
- Stage of disease.
- Type of lesion
- Experience and the resources available.

Therapy

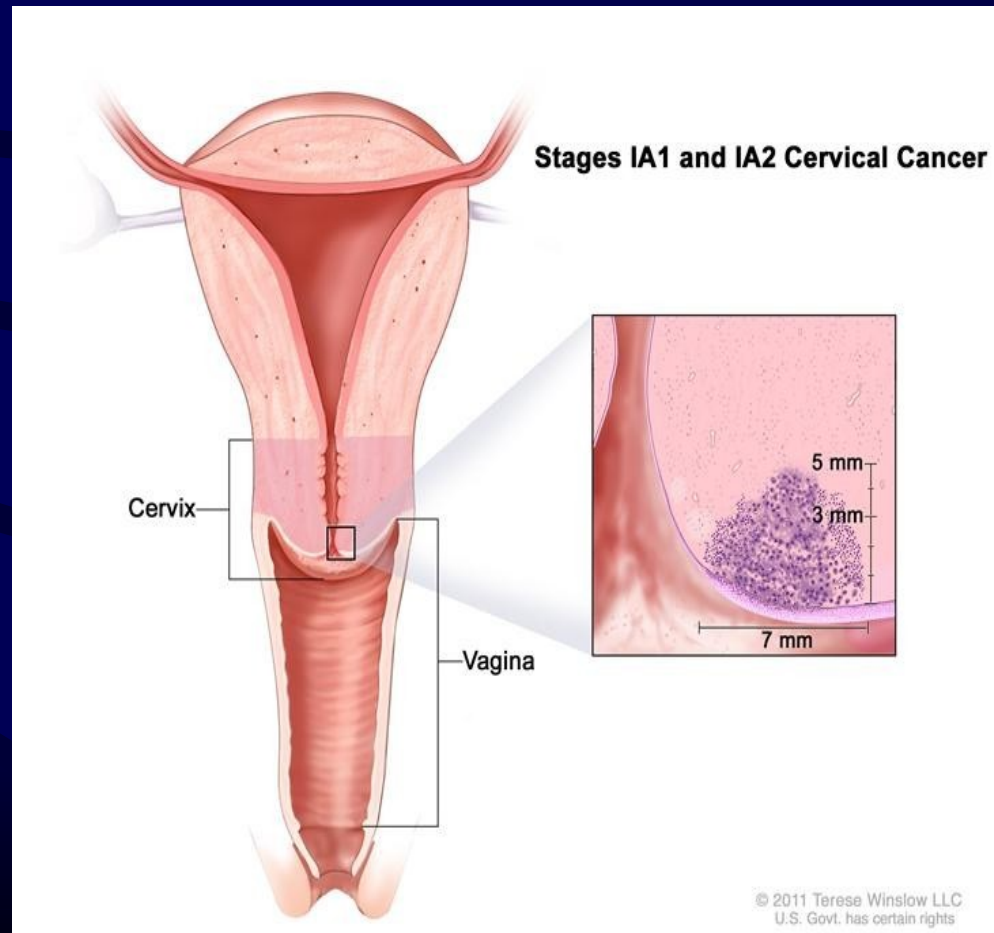
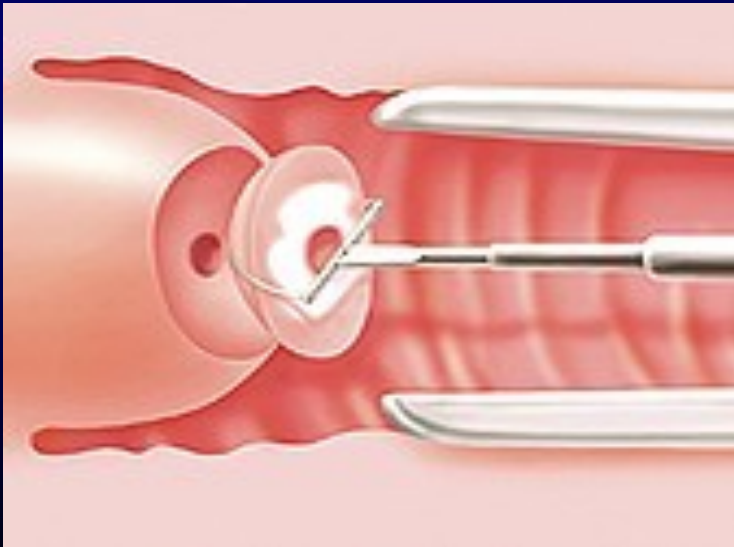
Cervical conization
Simple hysterectomy

Radical hysterectomy

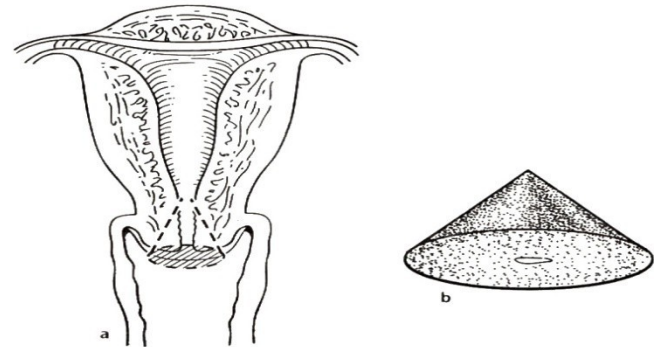
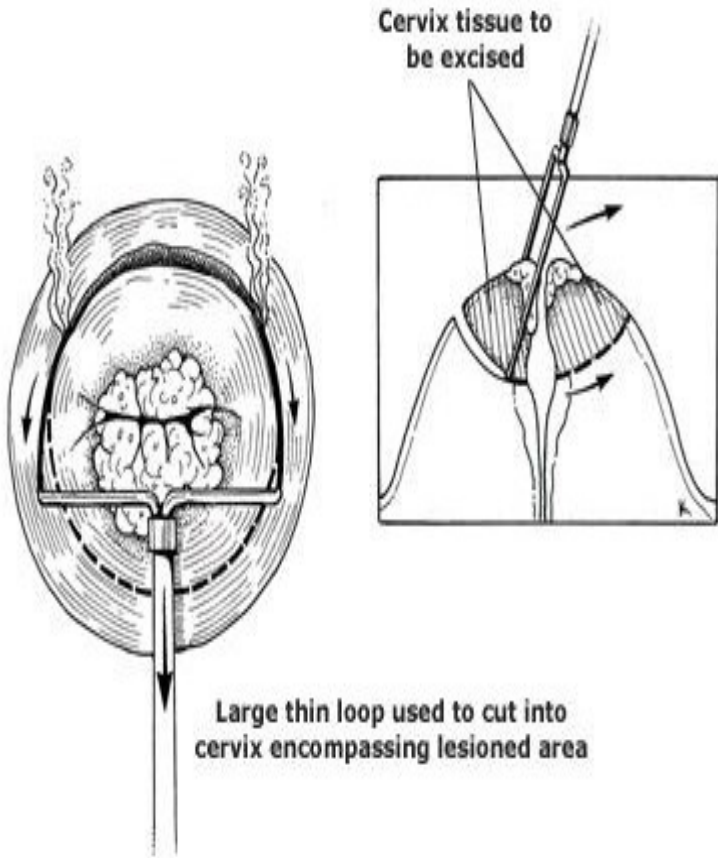
Radiation therapy with
chemosensitization

Stage 1 disease

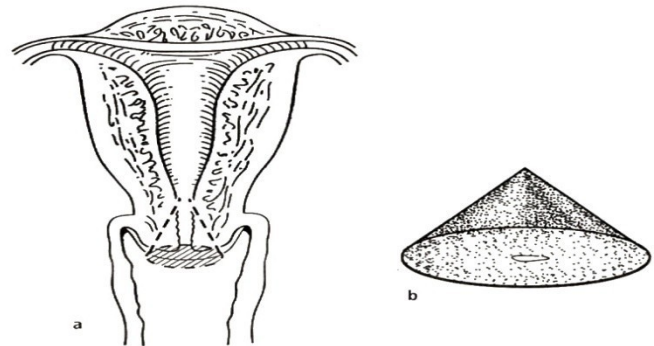
- Treatment = LLETZ
- Conization



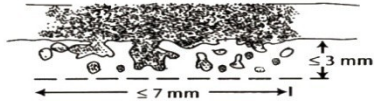
Large Loop Excision of the Transformation Zone



Cervix: FIGO Stage IA.

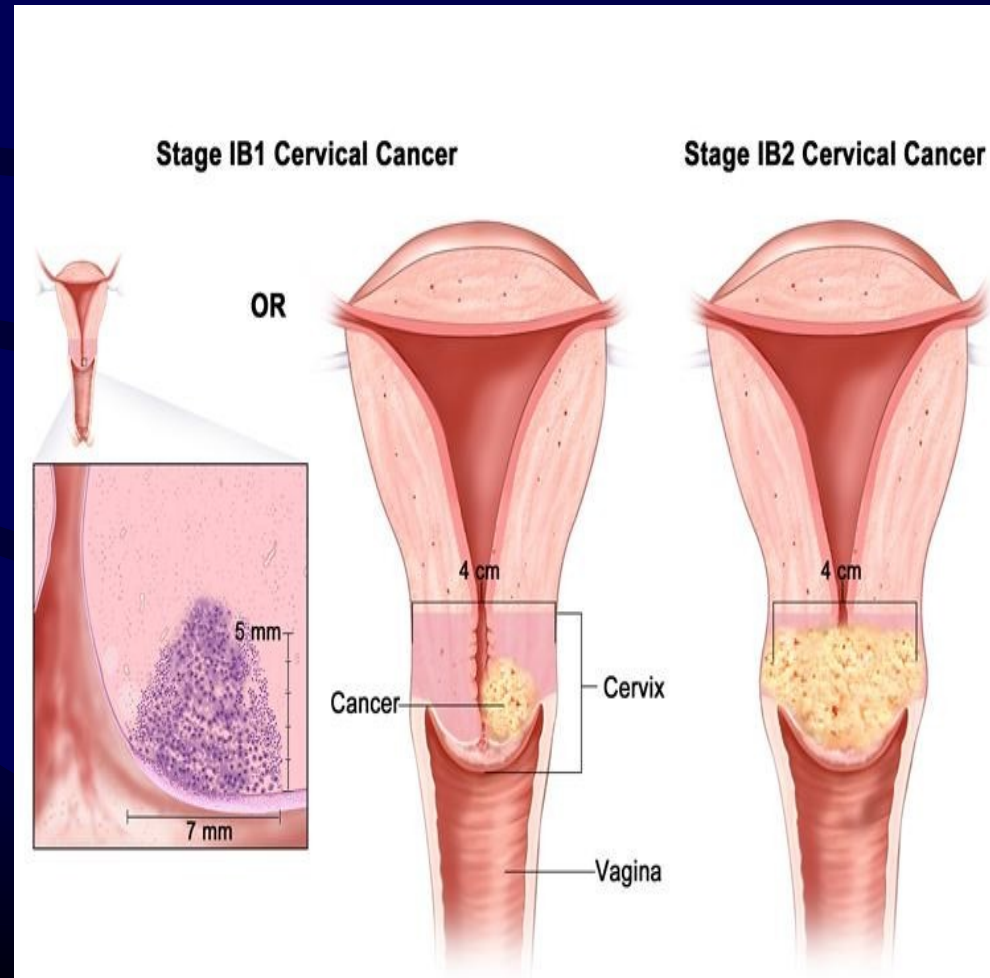


Cervix: FIGO Stage IA1.



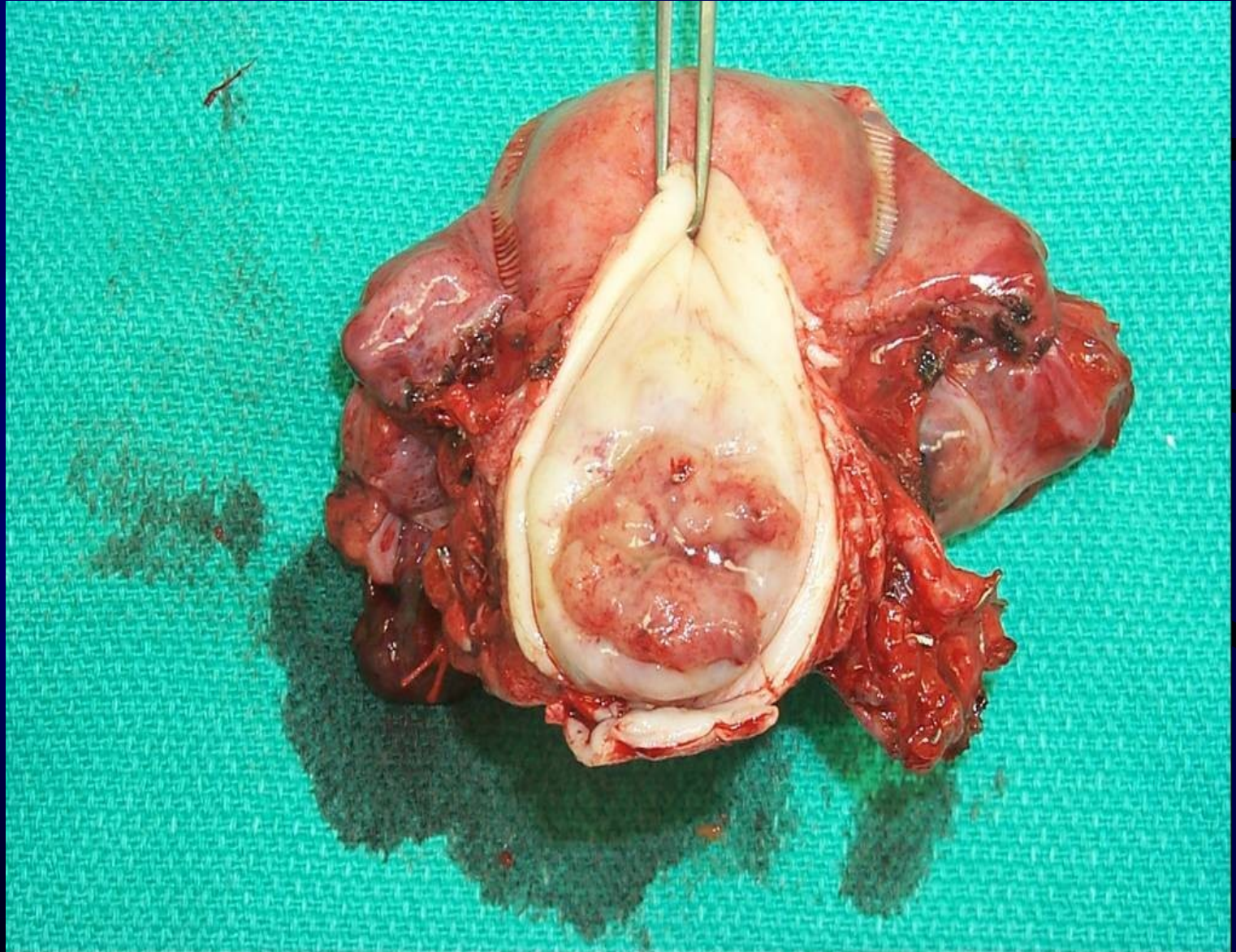
Stage 1 disease

- Confined to cervix
- Treatment
- = surgical for 1B1
- Chemo Radiotherapy for 1B2



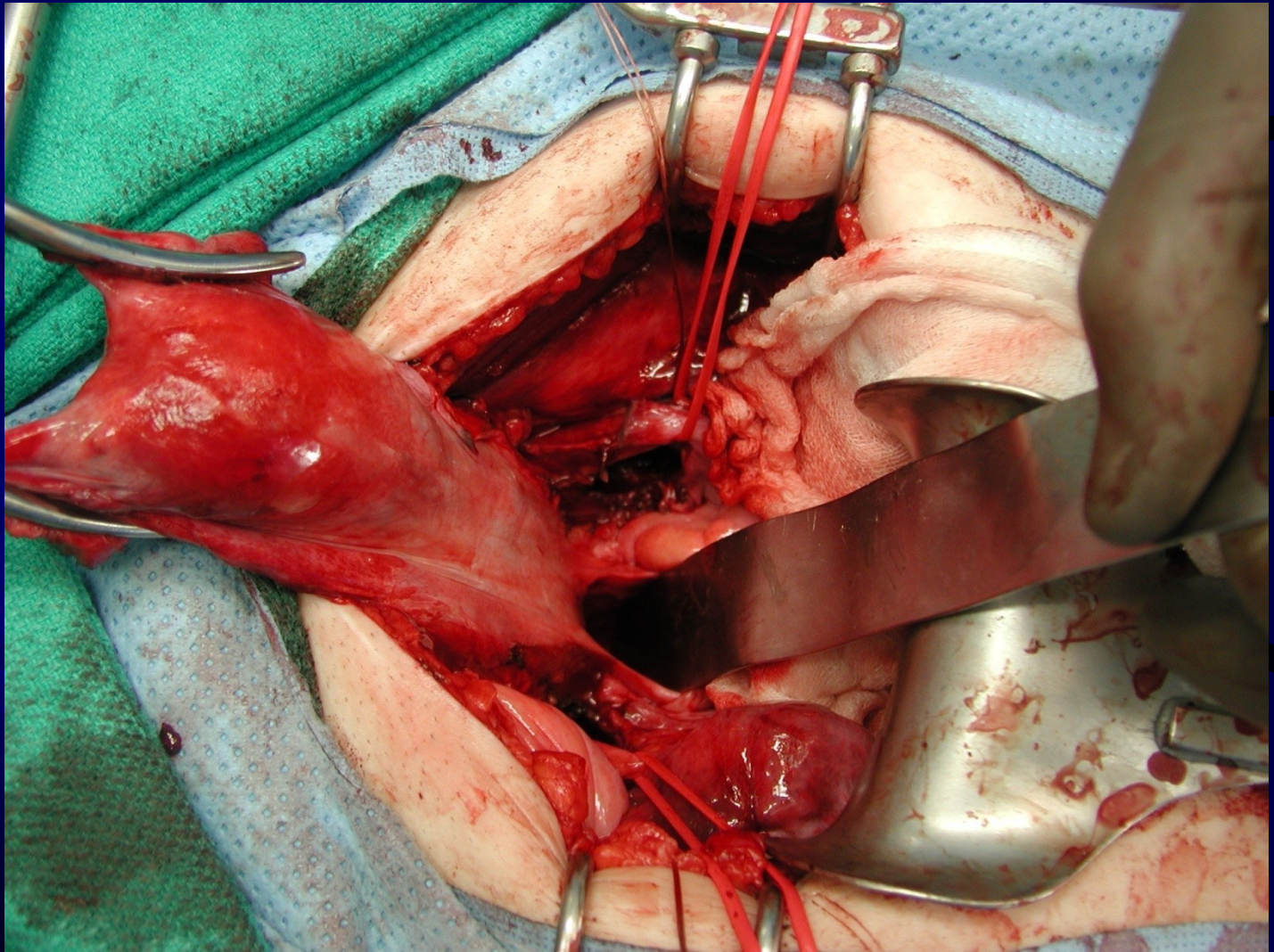
Surgical procedure

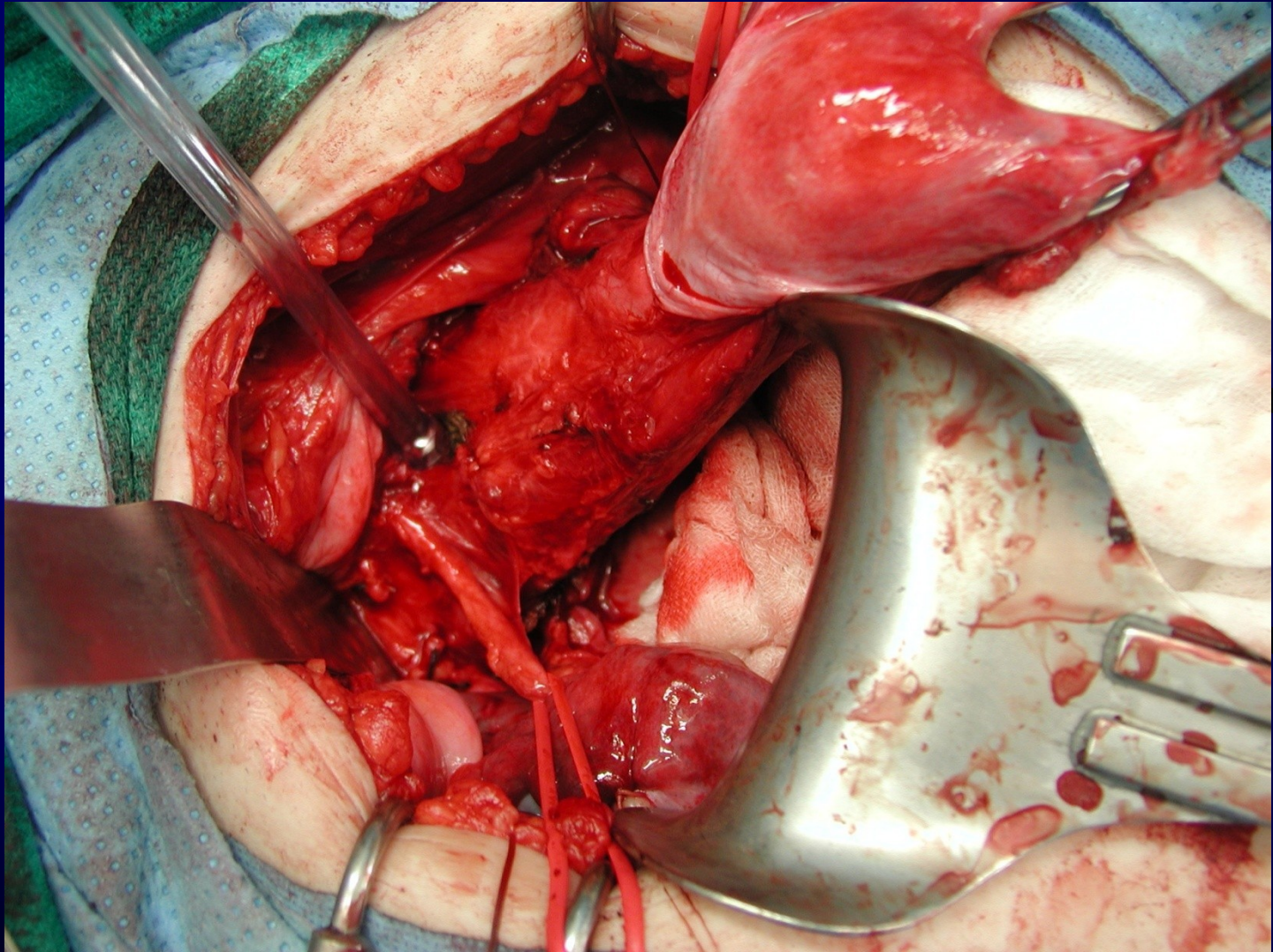
- The classic surgical procedure is the wertheim's hystrectomy for stage Ib,IIa, and some cases of IIb in young and fat patient



Wertheim's hysterectomy

- Total abdominal hysterectomy including the parametrium.
- Pelvic lymphadenectomy
- 3 cm vaginal cuff
- The original operation conserved the ovaries ,since squamous cell carcinoma does not spread directly to the ovaries.
- Oophorectomy should be performed in cases of adenocarcinoma as there is 5-10% of ovarian metastasis





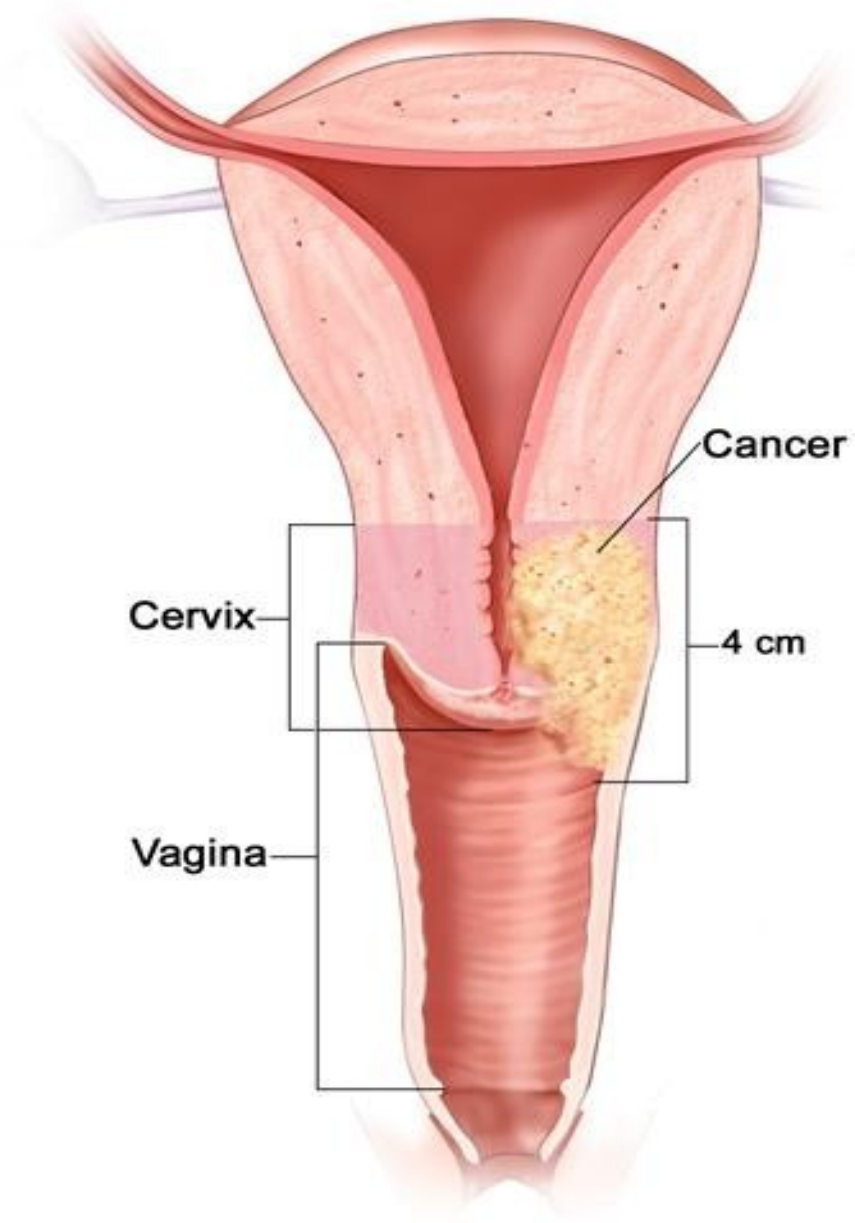
COMPLICATIONS OF SURGERY

- Haemorrhage: primary or secondary.
- Injury to the bladder, uerters.
- Bladder dysfunction.
- Fistula.
- Lymphocele.
- Shortening of the vagina.

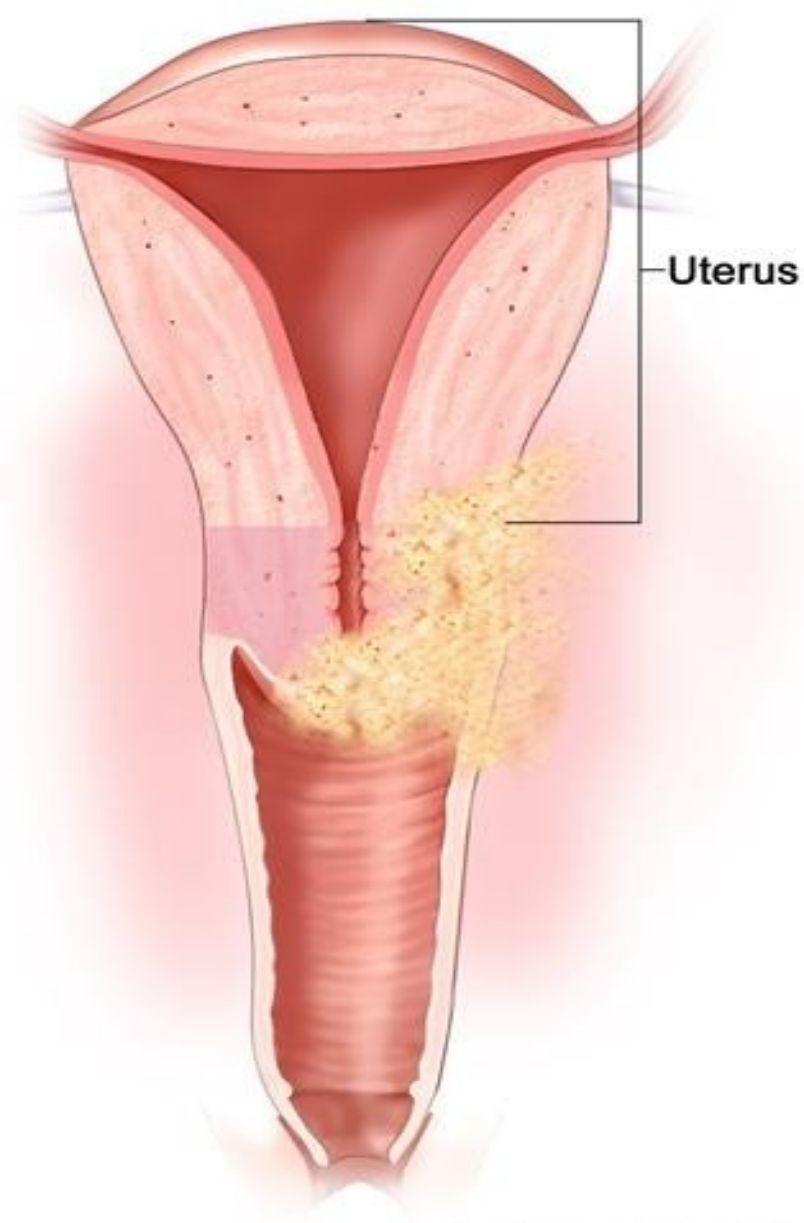
Lymphedema



Stages IIA1 and IIA2 Cervical Cancer

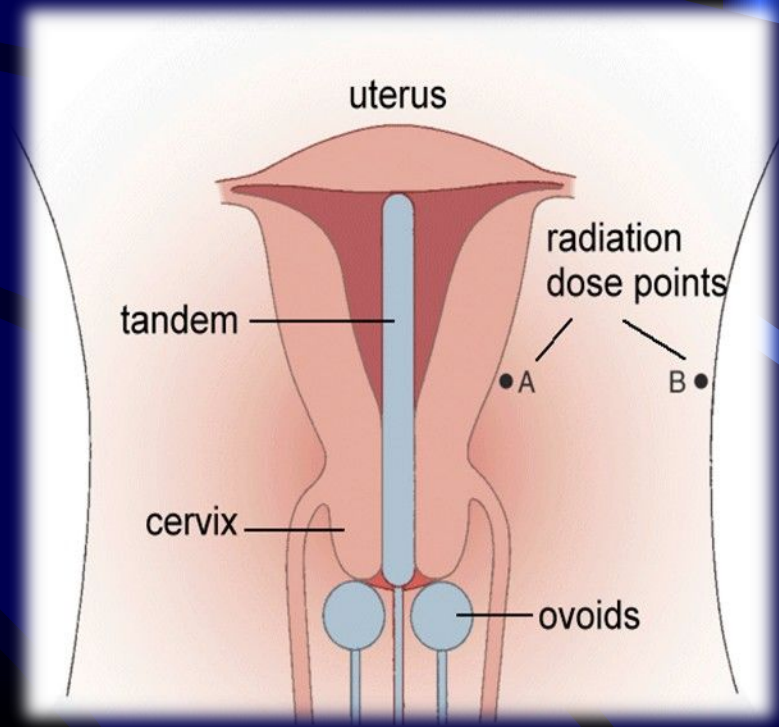


Stage IIB Cervical Cancer



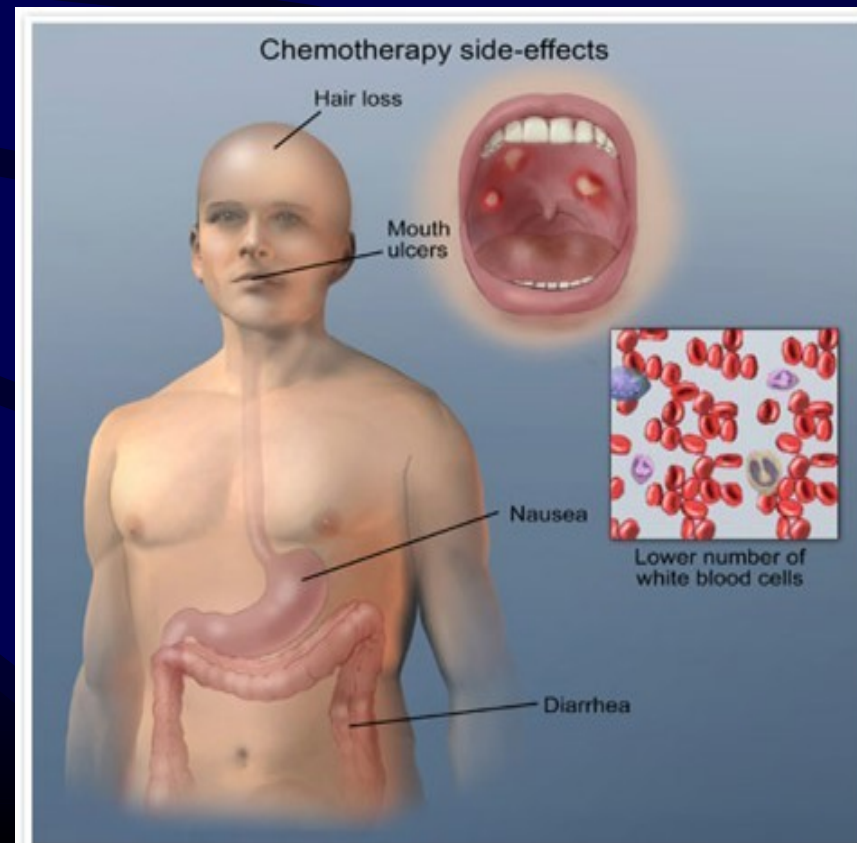
Radiation Therapy

External Beam Brachytherapy



Staging and Treatment

- Surgical in women up to stage 1b1
- Chemotherapy
- cisplatin \pm radiotherapy
- with ~~disease~~ > stage 1b1





Thank you