Most common cancer

- Africans & Asians – more prone because of poor socioeconomic condition
- Drastic decline in west – as more detection of preinvasive lesion by PAP Smears.
Etiology:

- Age - 2 peaks – one about 35 yr, 2nd -50- 55 yr
- Coitus < 18yr
- Multiple sexual partners
- Multiparity
- Delivery before 20 yr
- Poor personal Hygiene
- Poor socioeconomic class
- Smoking, drug abuse including alcohol
Contd ....

- Exposure to smegma – from uncircumcised partners – so incidence in jews & muslims
- STD, HIV, Simplex Virus ,type 2 , HPV
- Immunosuppressed persons.
CIN

Histopathological description in which part of full thickness of stratified Epithelium is replaced by cells showing varying degrees of dysplasia.
DYSPLASIA:

Change in which alteration of cell
Morphology & disorderly arrangement of epithelium.

- Cells Vary in size, shape & polarity.
- Alteration in Nuclear cytoplasmic ratio
- Irregular large hyperchromatic nucleus
- Mitotic figures.
CIN – I (Mild)
- Confined to lower 1/3

CIN II (Moderate)
- Undifferentiated cells lower 50 – 75%

CIN III
- Entire thickness replaced by Abnormal cells.

Basement membrane intact
Diagnosis:

Mostly Asymptomatic Rarely postcoital bleed or discharge mainly on cytological screening.

1. PAP Smear
2. Colposcopy – guided biopsy using schillers Iodine & Acetic acid
3. Cone Biopsy – Both diagnostic & Therapeutic
Treatment:

CIN I – Due to local infection
- Treat infection & Adv. Follow up PAP every 3-6 months.

CIN II & III

Local destructive methods

1. Cryo
2. Fulcration
3. Laser ablation
Excision of Abnormal tissue:

- Cold knife conisation
- Laser conisation

Surgery:

- Therapeutic conisation
- Hysterectomy
**Invasive Carcinoma - Cervix**

Pathology: 80% Sq cell Ca

20% Adenocarcinoma

Sq cell Ca – Commonly originate from SCJ

Adeno Ca – Endocervical Cancers.
Clinical Features:

- No Symptoms
- Menstrual irregularities – Irregular pus
  Menometorrhagia continuous bleeding post coital bleed.
- Leucorrhoea
- Foul smelling discharge.
On Examination

- Proliferative growths, ulcers or hard indurated areas
- Vascular, friable, bleeds on touch.
- Endocervical cancers – appears as barrel shaped enlargement of cervix.
Diagnosis by : Tissue biopsy

Modes of Spread:

3. Lymphatics – Pelvic nodes (parametrial, obturator, Hypogastric rarely distant nodes)
4. Vascular – Lung, Liver, bone, kidney, brain. To Ovary only 1%.
Differential Diagnosis:
- Tubercular or syphilitic cell
- Fibroid Polypus
- Sarcoma of Cx rarely

Complications:
1. Pyometra
2. Vesicovaginal/ Vesicocervical fistula
3. Rectovaginal fistula
4. Hydro Nephrosis
5. Uremia.
Staging of Ca Cx

Stage – I  Carcinoma strictly confined to the cervix
   IA – Microinvasive carcinoma.
   IB – Clinically visible lesion confined to the cervix

II – Cancer spread beyond the cervix, but not to pelvic wall or lower third of the vagina.
   IIA – Tumour without parametrial invasion
   IIB – Tumour with parametrial invasion
Contd ....

III  Tumour extends to the lateral pelvic wall, involves the lower third of vagina, and/or cause hydronephrosis or non – functioning kidney.

IIIA – Tumour involves lower third of the vagina, no extension to the lateral pelvic wall

IIIB – Tumour extends to pelvic wall, and/or spreads beyond the true pelvis.

IVA – Tumour involves bladder/ rectum or spreads beyond the true pelvis.

IVB – widespread tumour with distant metastases.
**Investigations:**

**Routine**
- Hemogram
- Urine
- B. Sugar
- LFT
- RFT
- Bld Gp & Type
- S. Electrolytes
- X ray - chest
- ECG
- IVP
Cystoscopy or Proctoscopy – To assess involvement of other pelvic organs (Rectum / bladder) for staging of disease.
Management:

Stage I A1 – Cone or simple hysterectomy

Stage I A2 – I B, II A
Radical hysterectomy with bilateral lymphadenectomy (Wertheim’s Operation)

Stage II B, III, IV – RT or combination with chemotherapy.
Surgery:

Advantages:

- Surgical staging possible
- Pelvic lymphatic glands can be removed
- Applicable if fibroids, adnexal masses present.

Disadvantages:

- Surgical mortality – 1%
- Anaesthesia complications
- Many require radiotherapy postoperatively
- Bladder - cystitis, fistula, ureteric **Radiotherapy**

**Advantages:**
- Applicable to all stages between stage IB to IV
- OPD Procedure

**Disadvantages:**
- Anaemia
- Ovarian destruction
- Pyometra
- Vaginal stenosis
- stenosis
- Not applicable in presence of ovarian tumour, adnexal mass, fibroids, prolapse.
## Cure Rates:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage I</td>
<td>- &gt; 90%</td>
</tr>
<tr>
<td>II A</td>
<td>- &gt; 80%</td>
</tr>
<tr>
<td>II B</td>
<td>- &gt; 65%</td>
</tr>
<tr>
<td>IIIA</td>
<td>- About 45%</td>
</tr>
<tr>
<td>IIIB</td>
<td>- About 35%</td>
</tr>
<tr>
<td>IV</td>
<td>- &lt; 15%</td>
</tr>
</tbody>
</table>
Radiotherapy:

Indi of RT : 1) IIB → IV

2) Recurrence

3) Pre / Post surgery irradiation

Pt A - 2cm above and lateral to the external cervical os - 7000cGy

Pt B – located 5.0cm laterally on the pelvic sidewall - 4500cGy.
Types of RT

a) External beam RT cobalt

b) Intracavity RT cobalt / caesium Paris, Stockholm, Manchester Methods - Now not used

Latest: After loading technique high dose.
Short duration (15 – 20 min).
Thank you