

# MANAGEMENT OF CARCINOMA CERVIX

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- 
- Preventive
  - Curative

# Preventive

- Primary Prevention
- Secondary prevention

# Primary Prevention

- Identifying 'high-risk' female
- Identifying 'high-risk' males
- Prophylactic HPV vaccine
- Use of condom
- Removal of cervix during hysterectomy

# Identifying 'high-risk' female

- – Women with high risk HPV infection
- – Early sexual intercourse.
- – Early age of first pregnancy.
- – Too many births/too frequent birth.
- – Low socioeconomic status.
- – Poor maintenance of local hygiene

# Identifying 'high-risk' males

- – Multiple sexual partners.
- – Previous wife died of cervical carcinoma.

# Prophylactic HPV vaccine

- Bivalent 0–2–6 month,
- Quadrivalent 0–1–6 month

# Secondary prevention

- identifying and treating the disease earlier in the more treatable stage

(This is done by screening procedures)

- Down staging screening (Who 1986)
- Down staging procedure



# Downstaging screening (Who 1986)

- Detection is done by nurses and other paramedical health workers using a simple speculum for visual inspection of the cervix
- it can minimize the cancer death through early detection

# Down staging procedure

- A female primary health care worker is trained for 2–3 weeks to perform speculum examination
- Distinguish a normal cervix from an abnormal one

# Definitive treatment

- Surgery ( stage I to II a)
- Radiotherapy (all stages)
- Combination of both

# Management based upon stage

- **Ia1 – cone biopsy or type I simple hysterectomy**
- **Ia2- Type II (modified radical) hysterectomy and pelvic lymphadenectomy**
- **Ib1- Type III (radical) hysterectomy and pelvic lymphadenectomy**
- **Ib2&Ib3- Primary chemoradiation or Type III (radical) hysterectomy with pelvic and paraaortic lymphadenectomy**
- **IIb onwards – primary chemoradiation**

# Treatment modalities of Carcinoma Cervix

- Primary surgery
- Primary radiotherapy
- Chemotherapy
- Combination therapy

# surgery

- Radical Hysterectomy
- Laparoscopic Radical Hysterectomy
- Simple Hysterectomy
- Cone biopsy
- Radical Trachelectomy
- Extenteration

# Radical Hysterectomy

- removal of the uterus, tubes and ovaries of both the sides
- upper half of vagina, parametrium (most of cardinal and uterosacral ligaments)
- obturator, internal and external iliac groups and sometimes common iliac
- Paraaortic lymph node evaluation is done. Any enlarged paraaortic lymph node is sampled and sent for frozen section biopsy.

# Difference between Radical Hysterectomy Type II & III

- Type III
- Described by Meigs
- Uterine artery ligated at the internal iliac
- Cardinal ligament divided at pelvic wall
- Uterosacral divided close to sacrum
- 3-4 cm of vaginal cuff removed
- More post operative problems
- Ideal for stage Ib1



# Difference between Radical Hysterectomy Type II & III

- Type II
- Described by Wertheim
- Uterine artery ligated as it crosses the ureter
- Medial half of Cardinal ligament only removed
- Uterosacral divided more anteriorly
- 2-3 cm of vaginal cuff removed
- Less post operative problems
- Ideal for stage Ia2

# Complications -Immediate

- Haemorrhage
- Injury to ureter , bladder or bowel,
- Pulmonary embolism

# Complications -Delayed

- Bladder atony
- Small intestinal obstruction
- Vesicovaginal fistula
- Ureterovaginal fistulae

# advantages of surgery over radiotherapy

- Spread of the disease can be determined more thoroughly by surgicopathological staging
- Surgical staging (Laparotomy or Laparoscopy) and assessment of paraaortic and pelvic nodes, can predict the survival rate accurately
- Preservation of ovarian function, if desired, specially in a young woman.

## advantages of surgery over radiotherapy – cont....

- Ovaries may be transposed out of the radiation field if radiation is considered in the postoperative period.
- Retention of more functional and pliable vagina for sexual function.
- Psychologic benefit to the patient in that her cancer bearing organ has been removed.

# Simple Hysterectomy

- Type I or extrafascial Hysterectomy
- Stage Ia1
- With out lymph node invovment
- Women completed their family

# Cone biopsy

- Diagnostic & therapeutic
- Stage Ia1
- Microinvasive carcinoma definitely diagnosed by this

# Radical Trachelectomy

- Cervix a & para cervical tissue are removed
- Preserve the uterus
- Ia2 and Ib1
- First lymphadenectomy then Trachelectomy



# Extenteration

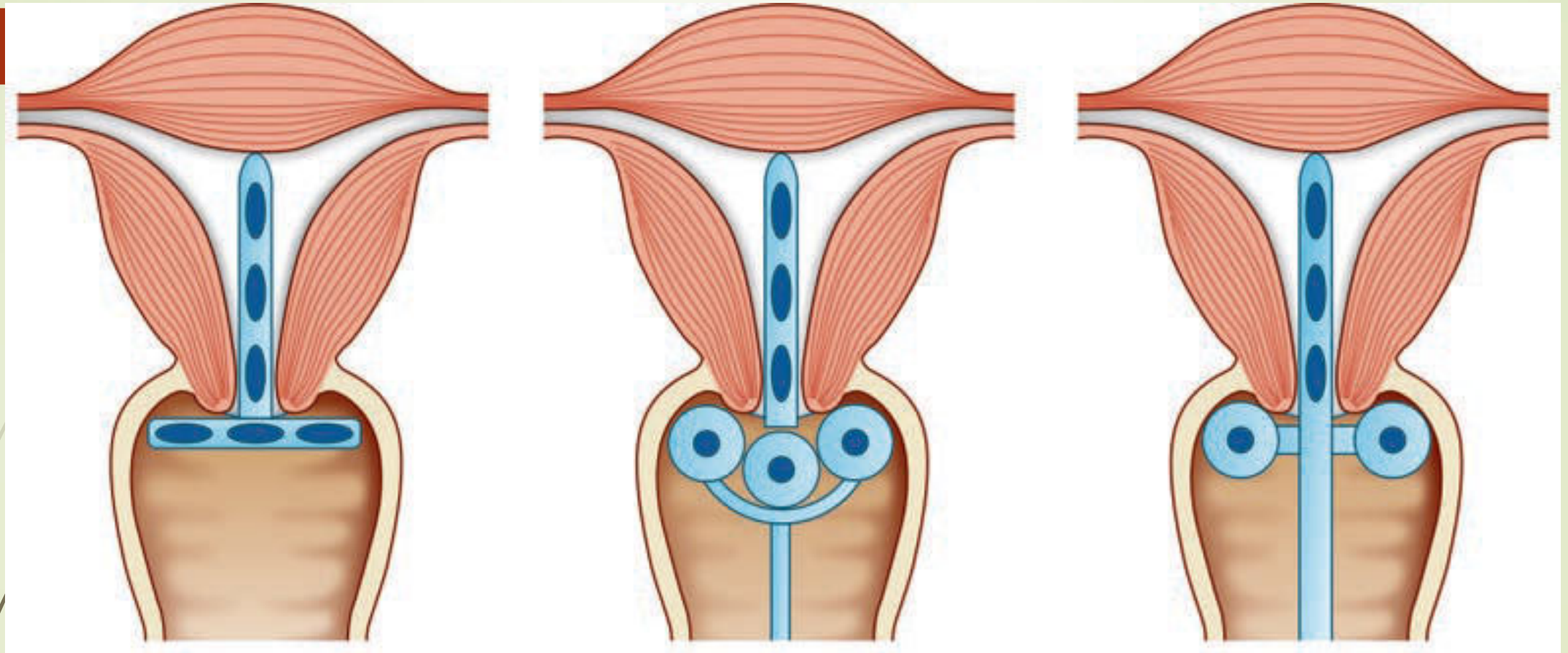
- Uterus and vagina removed
- Bladder or rectum or both removed
- After primary radiotherapy and no metastasis

# Primary Radiotherapy

- All stages
- In early stage, results of both more or less same
- **1. Brachytherapy or intracavitary**
- **2. external beam or teletherapy**

# Brachytherapy

- Intra uterine and intra vaginal tubes are used
- Small radioactive sources, mainly radium sulphate is mixed with some inert powder and packed in small needles or tubes
- Radiation sources for intracavitary radiation are Radium ( $^{226}\text{Ra}$ ), Cesium ( $^{137}\text{Cs}$ ) or Cobalt ( $^{60}\text{Co}$ ).
- The container is made up of platinum, gold or alloy steel to absorb alpha and beta particles and allowing the gamma rays to sterilize the cancer cells



**Different methods of brachytherapy — A. Stockholm technique, B. Paris technique, C. Manchester technique**

# External beam or Teletherapy

- Treating lymph node
- Decrease tumour volume
- Apparatus – linear accelerator
- Dose – depend upon stage of disease

# Advantages of Radiotherapy

- – Wider applicability in all stages of carcinoma cervix.
- – Survival rate 85%, comparable with that of surgery in early stages.
- – Less primary mortality and morbidity.
- – Individualization of dose distributions/requirement possible.

# Disadvantages of Radiotherapy

- Intestinal and urinary strictures, fistula formation (2–6%),
- vaginal fibrosis and stenosis
- Perforation of the uterus may result during introduction of uterine tube
- radiation menopause , fibrosis of bowel and bladder.
- Bleeding per rectum
- Nausea, vomiting, abdominal cramps, diarrhoea

# CHEMORADIATION

- Chemotherapy with radiation
- Benefits of systemic chemotherapy with regional radiation
- Chemotherapy sensitize cells to radiation
- Increases 5 year survival rate
- Usually cisplatin used (40 mg/sq.m)



# Combination therapy

- In the form of surgery, radiotherapy and chemotherapy may be done, one following the other

# Follow Up

- 3 monthly for first 2 year
- 6 monthly for next 3 year
- There after annually
- Counseling

# Palliative treatment

- Palliative treatment is primarily aimed to provide comprehensive care for relief of symptoms along with treatment of cancer in the advanced stage.

# Five year Survival Rates

- I – 85%
- II – 60 %
- III – 45%
- IV – 18%

# Conclusion

- Surgery and radiotherapy have equal results in early stages cancer
- Surgery may preferred up to stage Ib1
- Primary chemo radiation preferred from Ib2 onwards
- Survival depends upon lymph node status
- Radiotherapy is a combination of brachytherapy and external radiation
- It is proved that 100% squamous cervical cancer due to HPV, HPV vaccines are available.
- Survival rate of stage I is 85%.

THANK YOU