CANCER OF THE CERVIX

Introduction

- Cancer cervix is a disease that is usually assessed by the surgery and radiation therapy staff at the initial presentation to our cancer institute.
- Those patients with advanced; metastatic, recurrent cancers usually exhaust their initial local therapies and are referred to us to receive palliative chemotherapy as feasible after careful assessment for this treatment modality.

Initial Workup

- **Clinical assessment including:**
  - Performance status and
  - Gynecological examination.
- **Pathology review**
- **Laboratory Investigations:**
  - Complete blood count (CBC),
  - Chemistry profile.
- **Imaging:**
  - Chest X-ray
  - Magnetic resonance imaging (MRI) is superior to CT scan for tumor extension assessment and
  - MRI is equal to CT scan for nodal assessment.
  - Thoracic CT scan may be included for metastasis assessment.
  - PET scan is optional.

WHO histological classification of tumors of the uterine cervix

Epithelial tumors	Mixed epithelial and mesenchymal tumors
Squamous tumors and precursors	Carcinosarcoma
Glandular tumors and precursors	Adenosarcoma
Neuroendocrine tumors	Wilm’s tumor
Undifferentiated carcinoma	Melanocytic tumors
Mesenchymal tumors and tumor-like conditions	Malignant melanoma
Leiomyosarcoma	Miscellaneous tumors
Endometrioid stromal sarcoma (low grade)	Tumors of germ cell type
Undifferentiated endocervical sarcoma	Yolk sac tumor
Sarcoma botryoides	Dermoid cyst

Alveolar soft part sarcoma	Mature cystic teratoma
Angiosarcoma	Lymphoid and hematopoietic tumors
Malignant peripheral nerve sheath tumor	Secondary tumors

FIGO Staging

0	In situ
I	Confined to uterus
IA	Diagnosed only by microscopy
IA1	Depth ≤ 3 mm, horizontal spread ≤ 7 mm
IA2	Depth > 3-5 mm, horizontal spread ≤ 7 mm IA2
IB	Clinically visible or greater than microscopic lesion
IB1	≤ 4 cm
IB2	> 4 cm
II	Beyond uterus but not pelvic wall or lower third vagina
IIA	No parametrium
IIB	Parametrium
III	Lower third vagina/pelvic wall/ hydronephrosis
IIIA	Lower third vagina
IIIB	Pelvic wall/hydronephrosis
IVA	Mucosa of bladder/rectum; beyond true pelvis
IVB	Distant metastasis

Treatment

A general approach to the treatment of cancer cervix based on the stage of the disease.

FIGO Stage IA1

- Conization with free margins or simple hysterectomy (according to patient age).
- In the case of lymphovascular space involvement:
  - Pelvic lymphadenectomy is recommended.
- In patients with pelvic node involvement:
  - Standard treatment consists of complementary concomitant chemo-radiation.

FIGO Stage IA2

- Surgery is the standard including:
  - Conization or trachelectomy in young patients and
  - Simple or radical hysterectomy in other patients.
- Pelvic lymphadenectomy is required.
- Complementary concomitant chemo-radiation in patients with pelvic node involvement.

FIGO Stage IA2

- There is no standard treatment.
- Options consist of:
  - Surgery,
  - External irradiation plus brachytherapy or
  - Combined radio-surgery.
- Standard surgery consists of:
  - Radical hysterectomy,
  - Bilateral oophorectomy (optional) and
  - Pelvic Lymphadenectomy.
- Combined radio-surgery usually consists of preoperative brachytherapy followed 6–8 weeks later by surgery.
- Complementary concomitant chemo-radiation is the standard treatment in patients treated with upfront surgery or preoperative brachytherapy followed by surgery with pelvic node involvement.

FIGO Stage IB2–IVA

- Concomitant chemo-radiation is the standard of care.
- Platinum-based regimens for chemo-radiation remain the standard.
- External irradiation is combined with brachytherapy.
- A complementary extra-fascial hysterectomy is an option.
- Neoadjuvant chemotherapy remains controversial.

FIGO Stage IVB

- Cisplatin/paclitaxel/bevacizumab
- Platinum-based combination chemotherapy.
- Carboplatin/paclitaxel.
- Carboplatin/gemcitabine.
- Topotecan/paclitaxel

Locoregional and Metastatic Recurrence

- For most patients, palliative platinum-based combination chemotherapy is the standard.
- Pelvic exenteration and radiotherapy are other treatment options for selected cases.

Second-line Therapy

- Bevacizumab
- Albumin-bound paclitaxel
- Docetaxel
- 5-FU (5-fluorouracil)
- Gemcitabine
- Ifosfamide
- Irinotecan
- Mitomycin
- Pemetrexed
- Topotecan
- Vinorelbine

Follow Up

- Clinical follow up with gynecological examination including pap smear are performed:
  - Every 3 months for the first 2 years, then
  - Every 6 months for the next 3 years and
  - Yearly thereafter.