Chapter 6.c.3. Methods of treatment

Radiation

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Chapter 6.c.3

Methods of treatment – Radiation

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Cervical cancer

- Diagnostics
- Staging

**Therapy**
- Surgery
- **Radiation**
- Systemic therapy

- Prognosis
- Follow-up treatment
Radiotherapy

- External beam radiotherapy (EBRT) to treat cancer = teletherapy
- Radiotherapy combined with chemotherapy = chemoradiation
- Regional internal radiotherapy = brachytherapy or afterloading (local therapy)
Radiotherapy indications

- **Primary radiotherapy**
  - Irradiation and simultaneous chemotherapy
  - Brachytherapy and teletherapy better than teletherapy alone

- **Post-operative radiotherapy**
  - Only if there are risk factors such as large size of tumour, positive parametrium, hemangiosis, positive lymph nodes
  - If possible irradiation and simultaneous chemotherapy

- **Radiotherapy of recurrent disease**
  - Effective when no previous radiotherapy
  - If possible radiotherapy and simultaneous chemotherapy
Combined chemoradiation

- Overall survival in 11 prospective randomised studies radiotherapy vs. chemotherapy in primary and adjuvant radiotherapy of 2856 patients with cervical cancer

- Combined chemoradiation is superior to radiotherapy alone for both primary and adjuvant treatment
Organ sparing
Delivery systems
Brachytherapy
Adjuvant chemoradiation after surgical therapy

• Indication for:
  - R1 (microscopic resection margin involvement)
  - pN1 (lymph node involvement)
  - pT2b
  - V1 and L1 (blood and lymph vessel involvement)
Toxicity

• **Acute toxicity**
  - Occurs within the first 90 days after initiation of therapy
  - Can be effectively treated

• **Late toxicity**
  - Occurs more than 90 days after initiation of therapy
  - Usually chronic
Acute toxicity

- Erythema
- Hyperpigmentation
- Pollakisuria
- Mucositis
- Diarrhea
- Fistula formation
- Bone marrow depression
- Kidney toxicity
- Hearing impairment
Late toxicity

- Chronic proctitis
- Chronic cystitis
- Bladder shrinkage
- Stenosing lesions of the rectosigmoid, urethra, ureters and/or vagina
- Hearing impairment
- Impairment of renal function
- Lymphedema
Thank you

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www.uicc.org/cervicalcancercurriculum