



UICC HPV and CERVICAL CANCER CURRICULUM

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

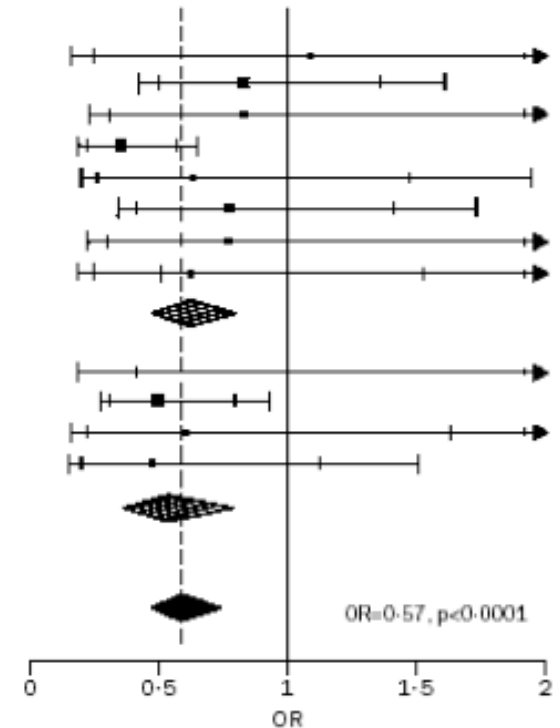
- External beam radiotherapy (EBRT) to treat cancer
= teletherapy
- Radiotherapy combined with chemotherapy
= chemoradiation
- Regional internal radiotherapy
= brachytherapy or afterloading (local therapy)

Radiotherapy indications

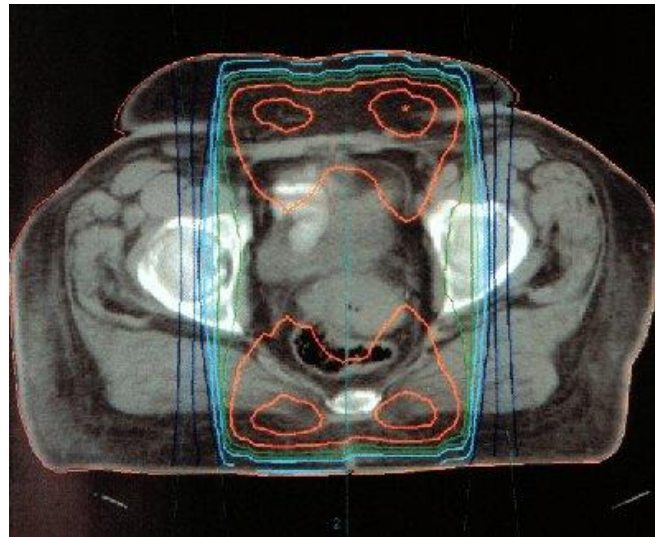
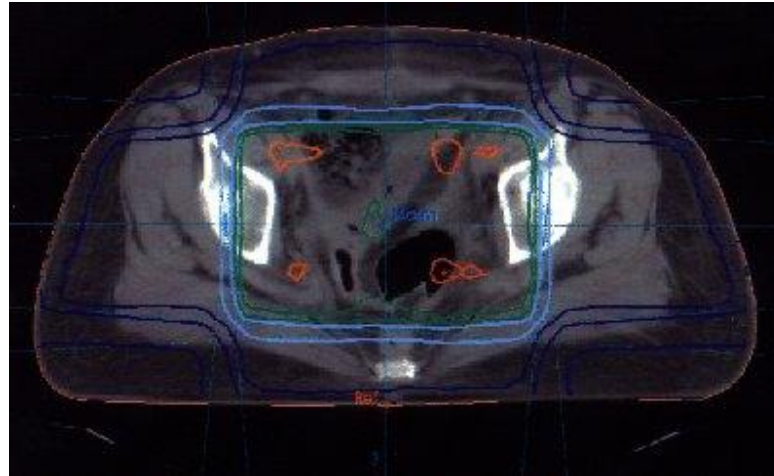
- **Primary radiotherapy**
 - Irradiation and simultaneous chemotherapy
 - Brachytherapy and teletherapy better than teletherapy alone
- **Post-operative radiotherapy**
 - Only if there are risk factors such as large size of tumour, positive parametrium, hemangiosis, positive lymph nodes
 - If possible irradiation and simultaneous chemotherapy
- **Radiotherapy of recurrent disease**
 - Effective when no previous radiotherapy
 - If possible radiotherapy and simultaneous chemotherapy

Combined chemoradiation

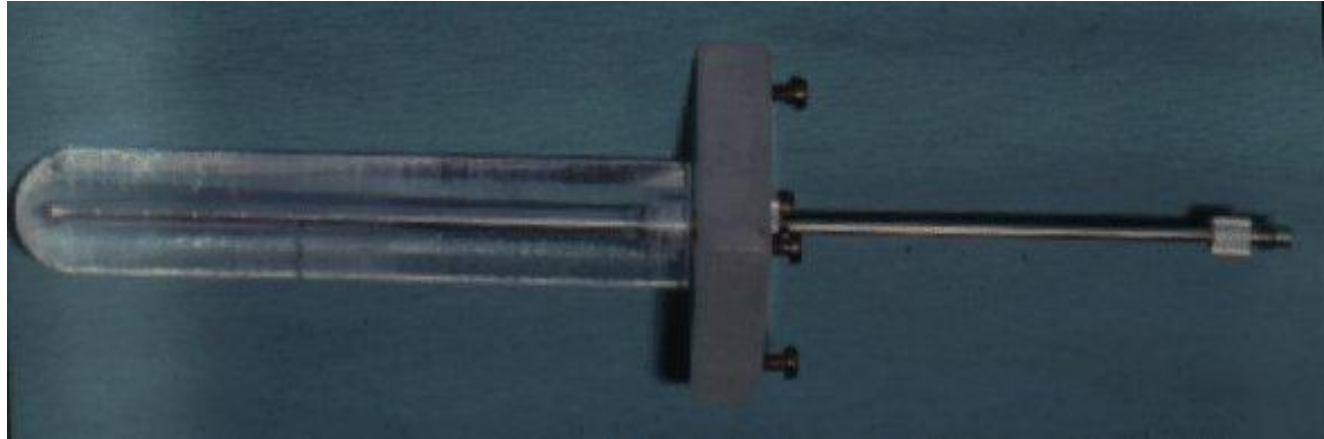
- Overall survival in 11 prospective randomised studies radiotherapy vs. chemotherapy in primary and adjuvant radiotherapy of 2856 patients with cervical cancer
- Combined chemoradiation is superior to radiotherapy alone for both primary and adjuvant treatment



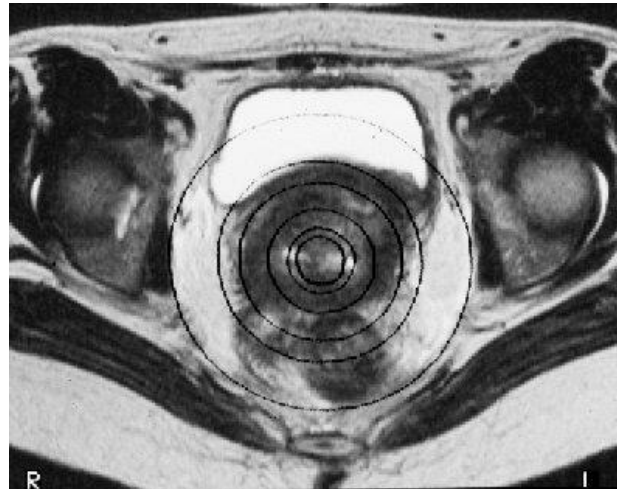
Organ sparing



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

This presentation is available at
www.uicc.org/cervicalcancercurriculum