

# Oral cancer

## Chemotherapy, Radiotherapy

Semmelweis University, Dental Faculty  
Department of Oro-Maxillofacial Surgery and  
Stomatology

Head: Zsolt Németh med habil, PhD

# Chemotherapy

Treatment of cancers with drugs

Cytostatic agents

Hormones

Biological response modifiers

Combination

# Development of CTX

1942 – 1959	Palliative results Major toxic side effects
1960 – 1979	Healing was possible in some cases
1980 -	Efficacy ↑ Toxicity ↓
2006	Molecular pathology Immunotherapy Gene therapy

# Systemic CTX

Neoadjuvant

(Reduction of the tumor, possibility for curative operation)

Adjuvant

(Decrease the prevalence of a relapse)

Palliative

(advanced cancer stage)

# Combined therapy

1/3 of the patients are treated this way

The number of tumors can be healed only with CTX is low, only about 5%

# CTX

Systemic - Regional

Cycles

The efficacy depends on the given dose, on the Nr. and length of the cycles, and on the length of the interval between cycles

The dose should be high as possible

Combination of CTX drugs, synergism, Radio-Chemotherapy

# Intra-arterial chemotherapy

In tumors with good blood supply

Best results if it is performed within combined therapy (S+CTX+RT)

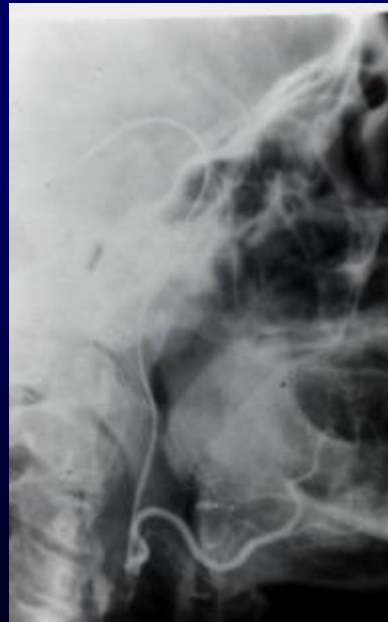
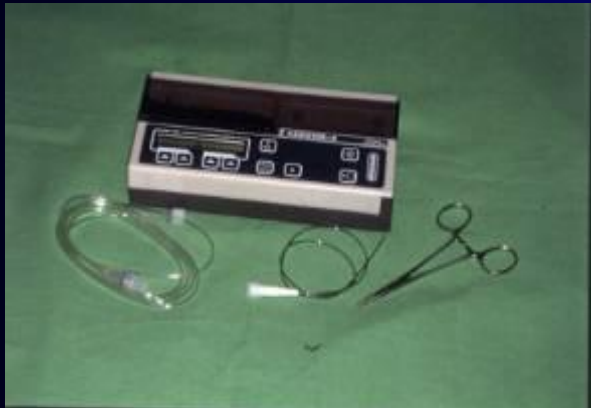
# Advantages of IA - CTX

High drug concentration at the target area

Low systemic toxicity

Better QOL during CTX











# Side effects

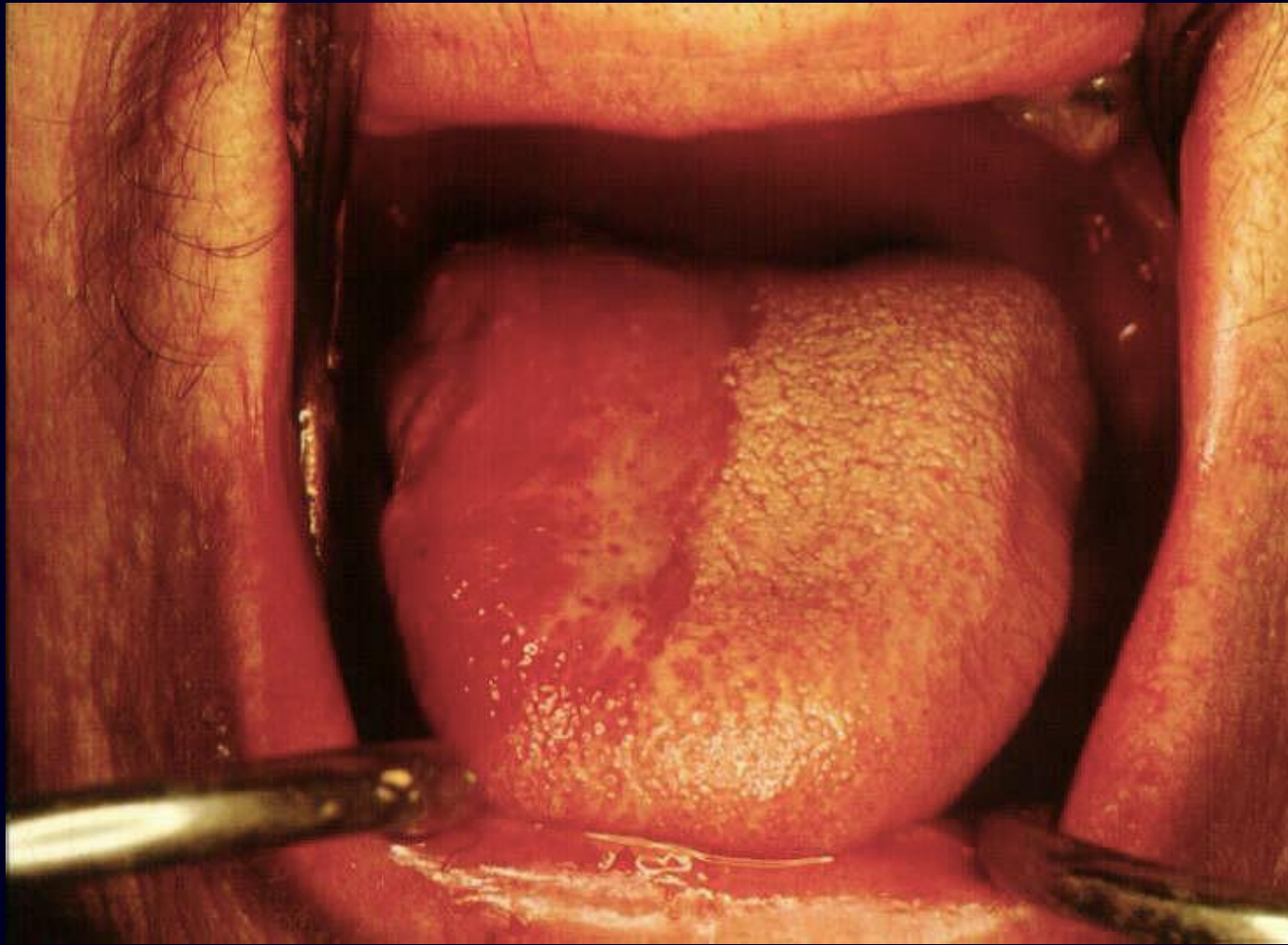
Myelosuppression

Mucositis

Alopecia

Skin ulcers

Facial paresis







# Radiotherapy

## Healing - Damage

Oral cancers are radiosensitive

Teletherapy – Interstitial therapy

Maximal dose 60 – 70 Gy

# Radiotherapy

Goal: To destroy the tumor, better circumstances for an operation, decrease pain, local tu. controll, QOL

Goal: maximal tumor destruction at the target area with minimal damage in the surrounding tissues

Critical organs

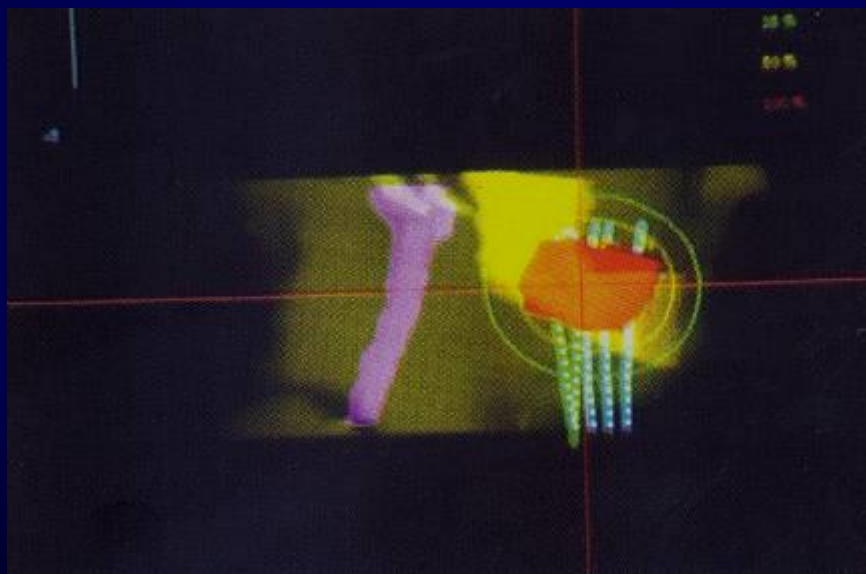
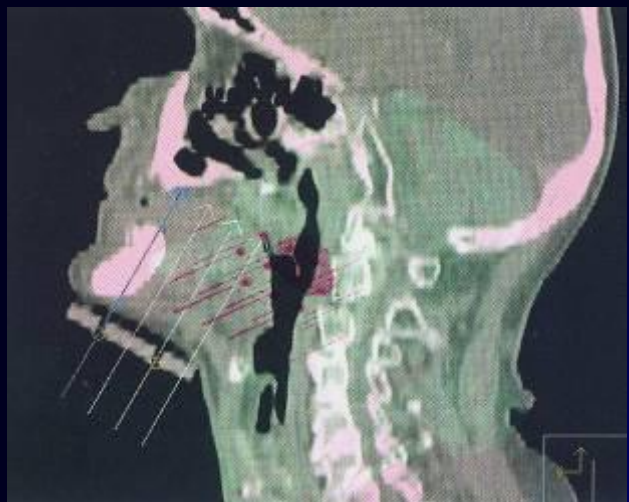
CNS, eyes, teeth, jawbones

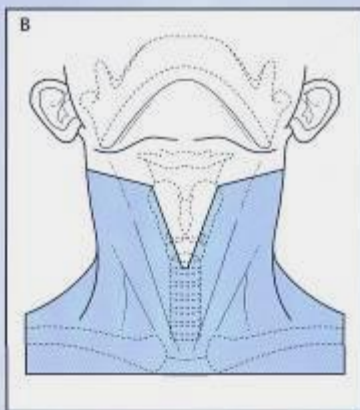
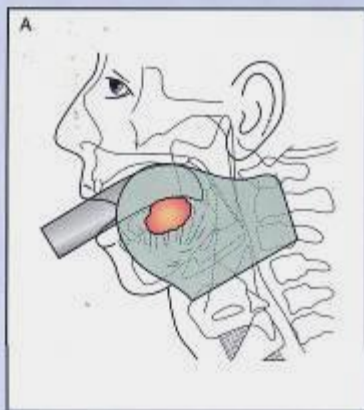
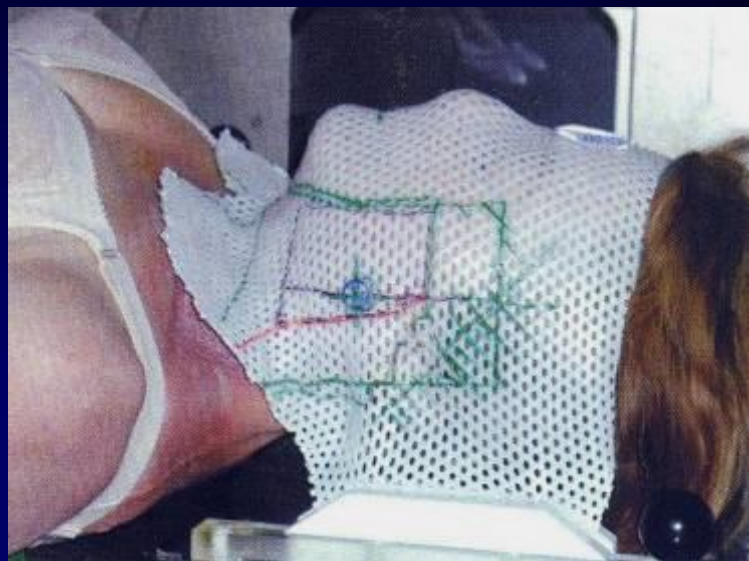


# Radiotherapy

Result-influencing factors

Radiosensitivity of the tumor, Grade, Tu-volume,  
given dose, way of fractionation







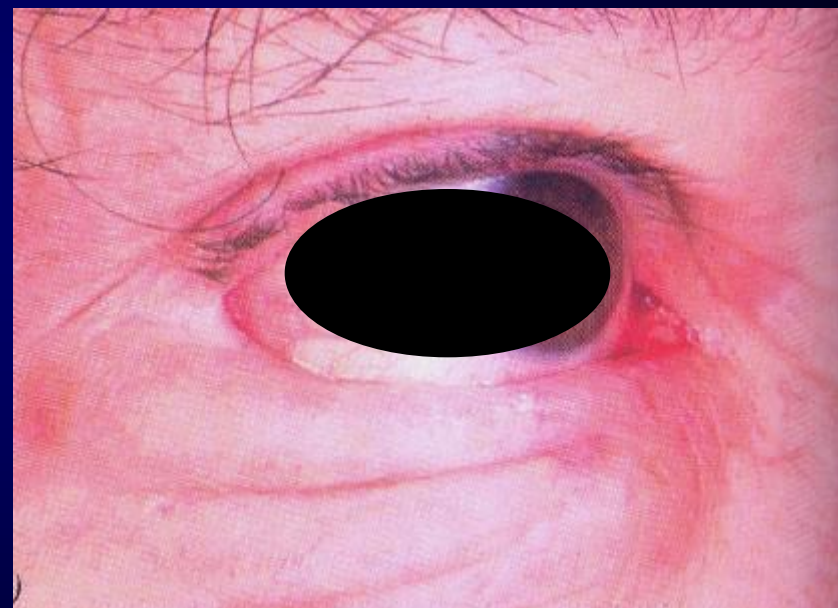




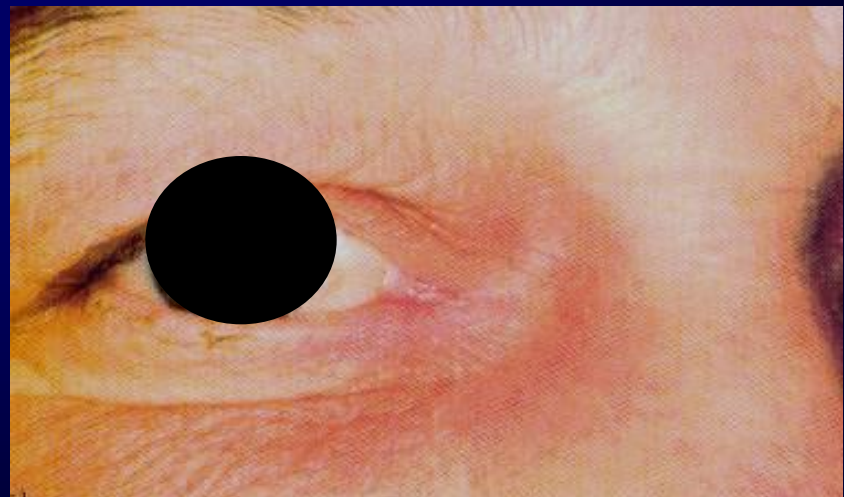












# Radiotherapy

## Possibilities

Radio-Chemotherapy

Thermotherapy – Radiosensitizer

Teletherapy – AL therapy

Dose escalation

3D therapy planning