

# Difficult Base of Tongue Cancer Contouring: **MD Anderson Cancer Center**

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Head and Neck Radiation Oncology

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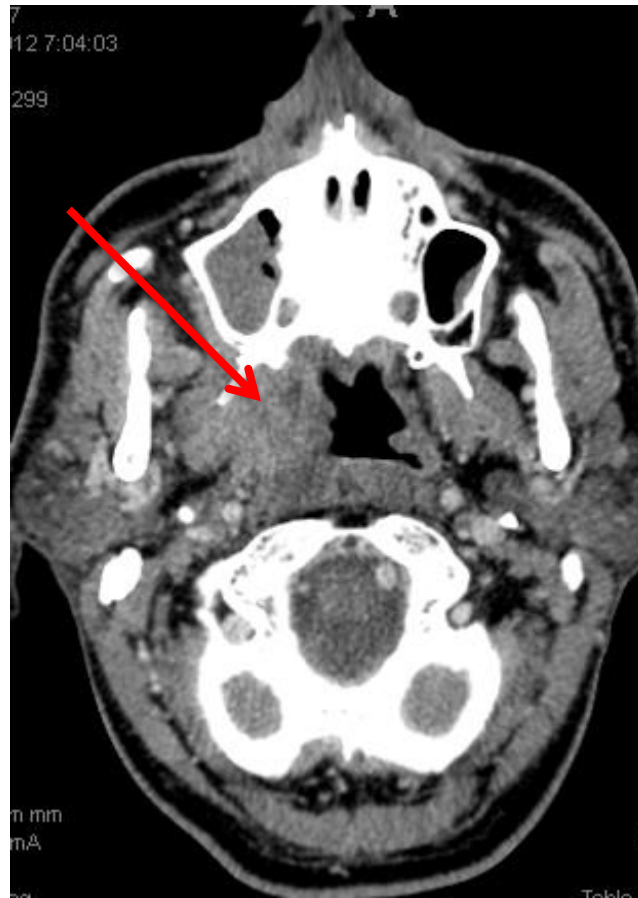
# BOT Cases

- **Case**: Induction chemotherapy → chemoradiation therapy

# Case

- 46 year old male
- Unhealing dental extraction
- Developed odynophagia, trismus, right sided jaw pain, right neck mass
- CT Head and Neck imaging obtained:

# CT Head and Neck



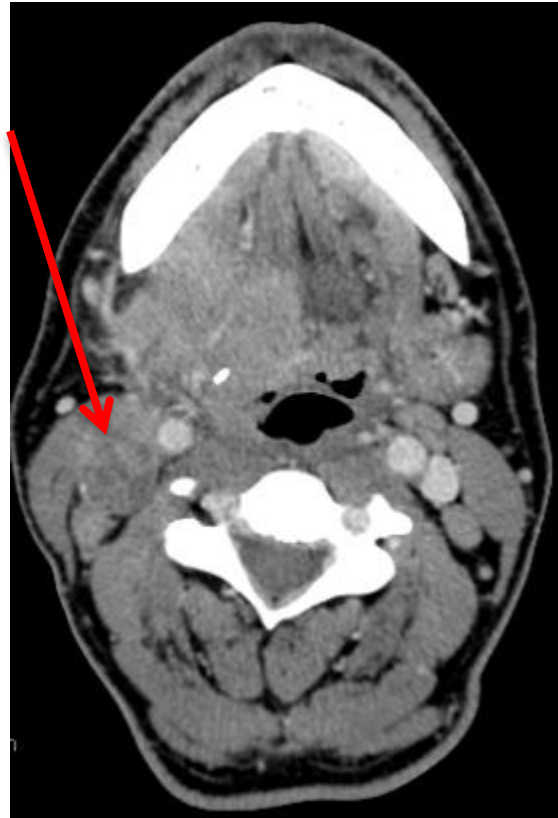
# CT Head and Neck



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# CT Head and Neck Findings:

- Heavy involvement of the right tongue base with extension into the extrinsic tongue musculature
- Involvement laterally to the right retromolar trigone and mandibular gingiva (with mandibular destruction of an extensive nature)
- Extension upward to involve the tonsillopharyngeal wall and up into the nasopharynx
- Lateral extension through the parapharyngeal space and into the masticator musculature
- Extensive ipsilateral necrotic nodal metastases and several contralateral nodal metastases

# Stage?

# AJCC Stage Descriptions

- T4a - invades larynx, deep/extrinsic muscles of the tongue, medial pterygoid, hard palate, or mandible
- T4b - invades lateral pterygoid, pterygoid plates, lateral nasopharynx, skull base, or encases carotid

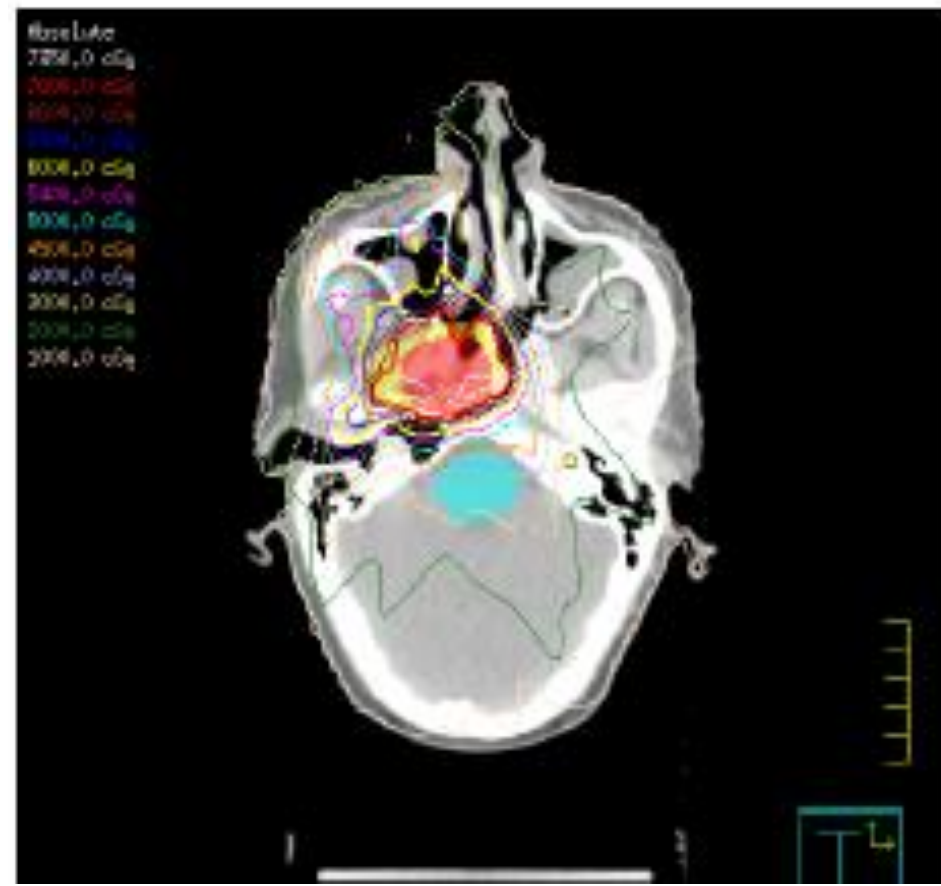
# Stage: T4bN2c

- Treatment options:
  - For N2-3 disease:
    - Concurrent chemoradiation
    - Induction chemotherapy followed by RT or chemoradiation
    - Surgery for primary and neck
    - Multimodality clinical trials

# Chemoradiation treatment plan

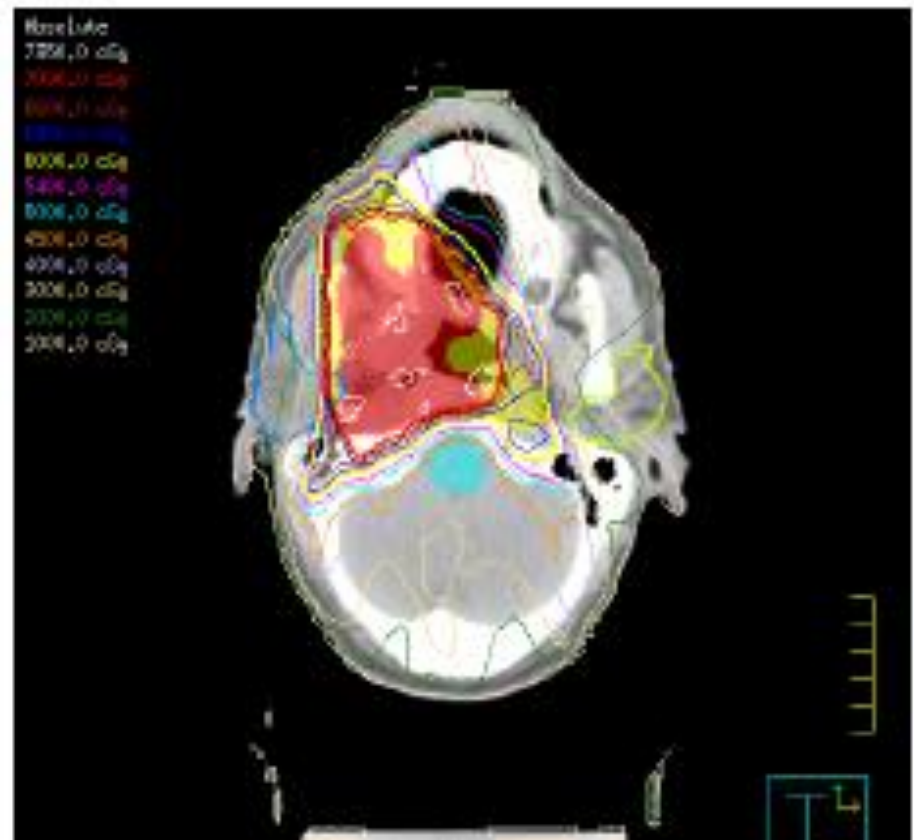
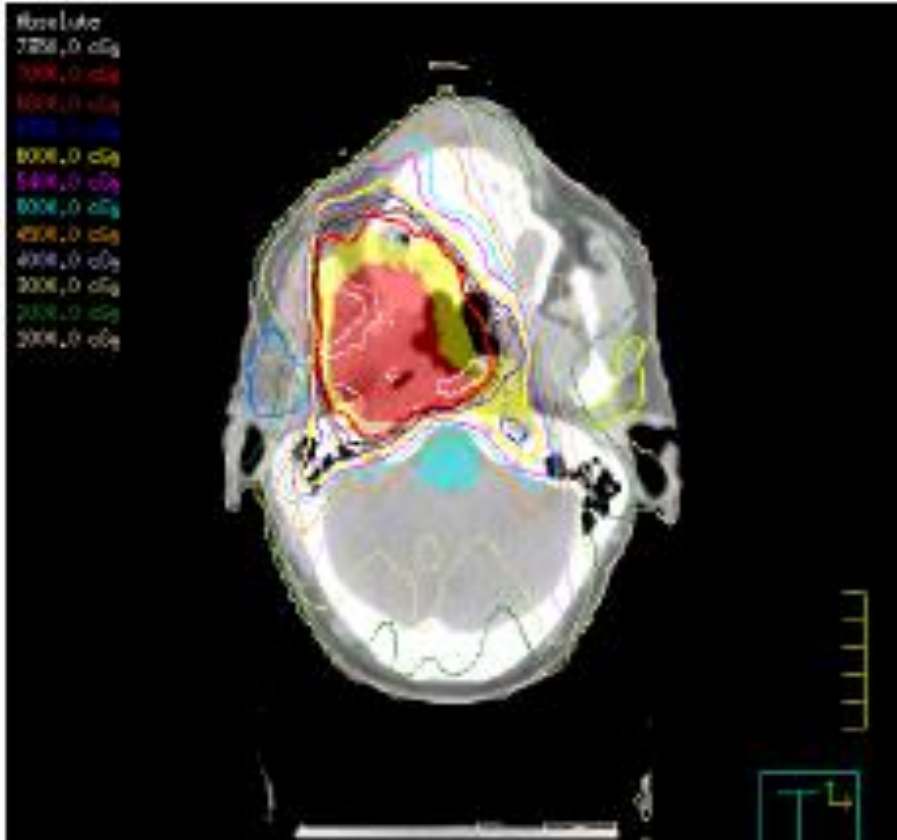
- Radiation treatment
  - 70 Gy in 33 fractions to gross disease and areas of previous gross disease
  - 60 Gy in 33 fractions to at risk areas
  - Matched to low neck field:
    - 40 Gy in 20 daily fractions with larynx block
    - 10 Gy in 5 fractions with midline block
    - 10 Gy in 5 fractions for right neck boost LAO/RPO
    - 6 Gy in 3 fractions right low neck boost

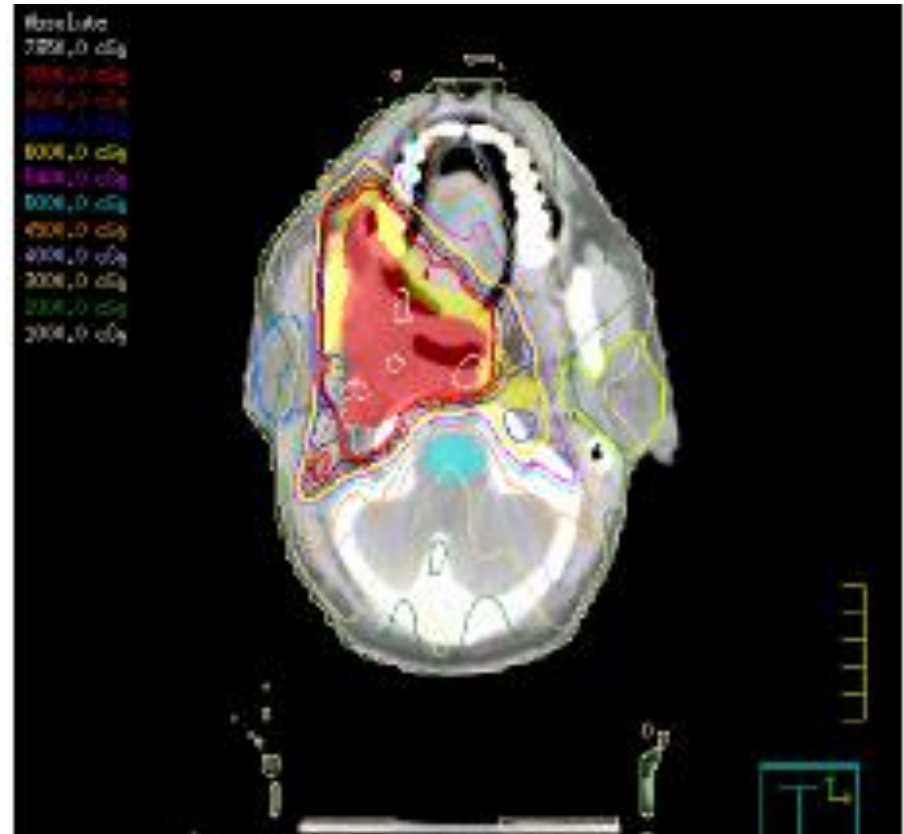


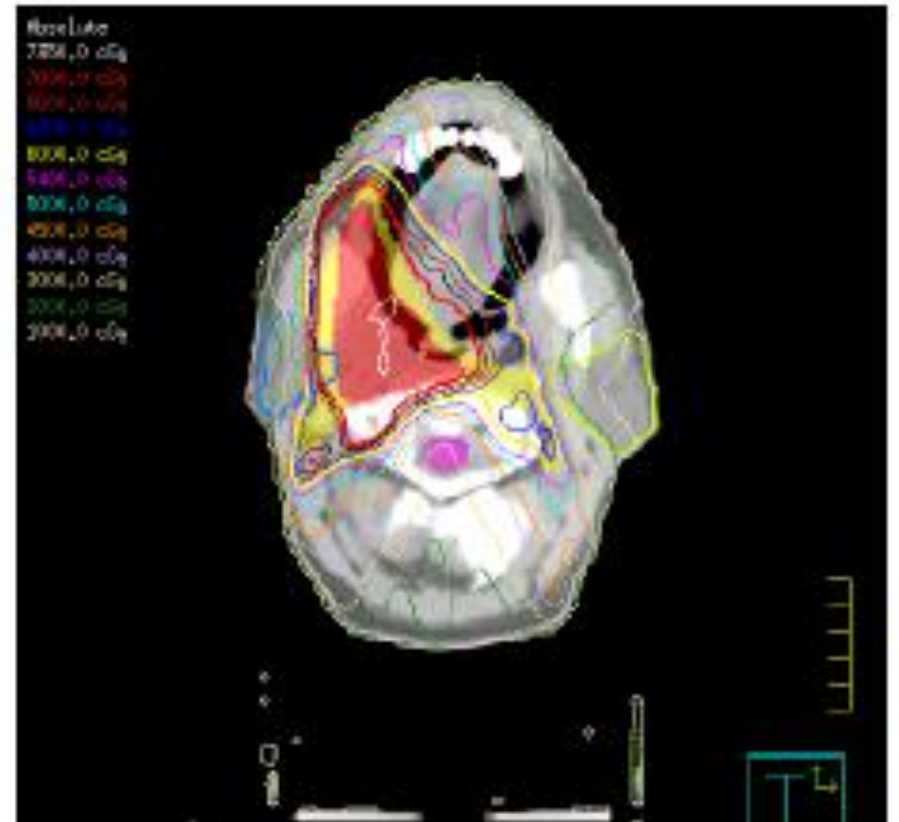
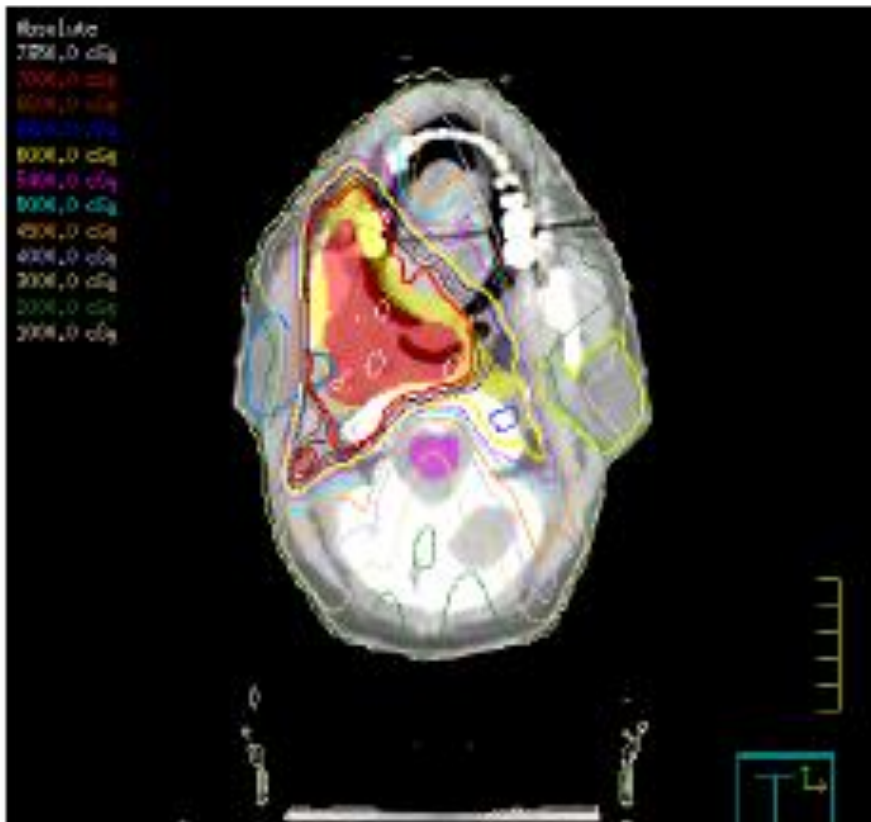


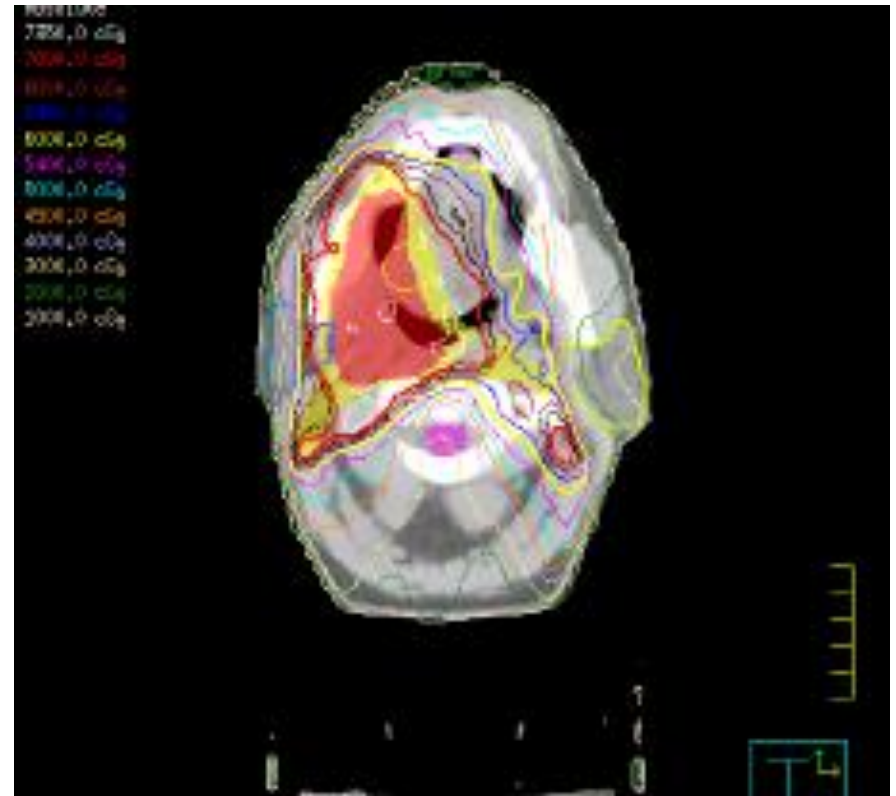


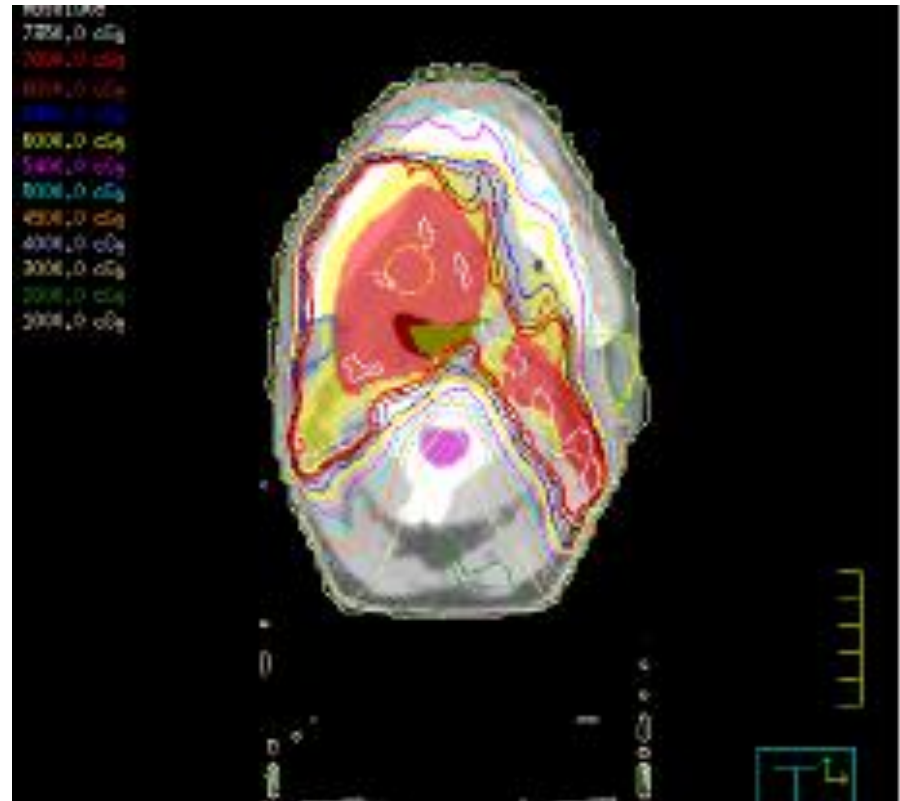
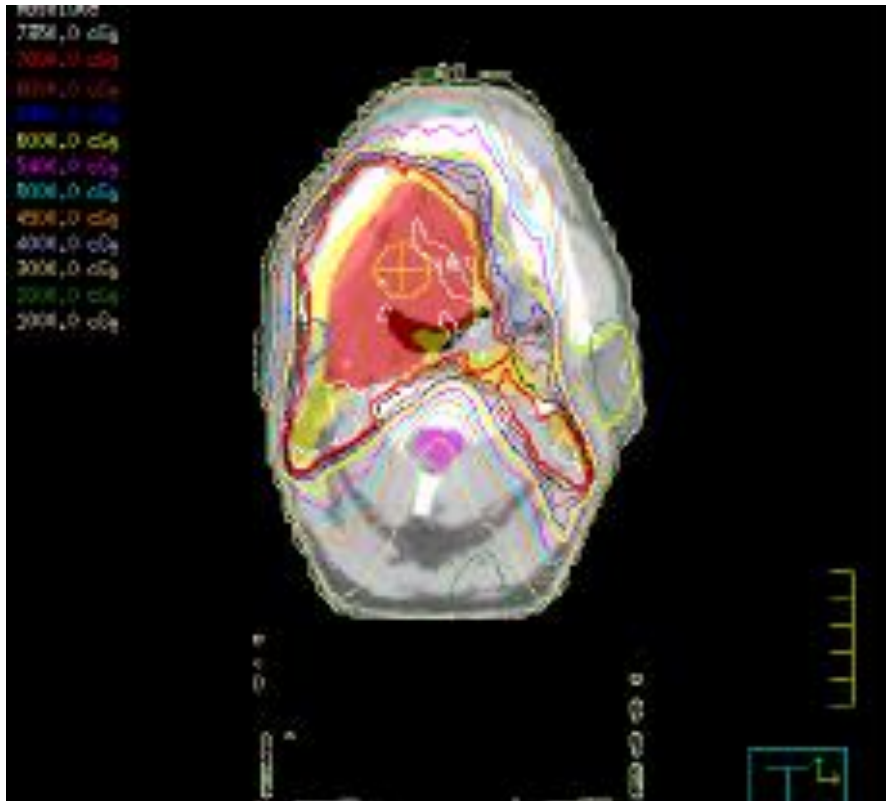


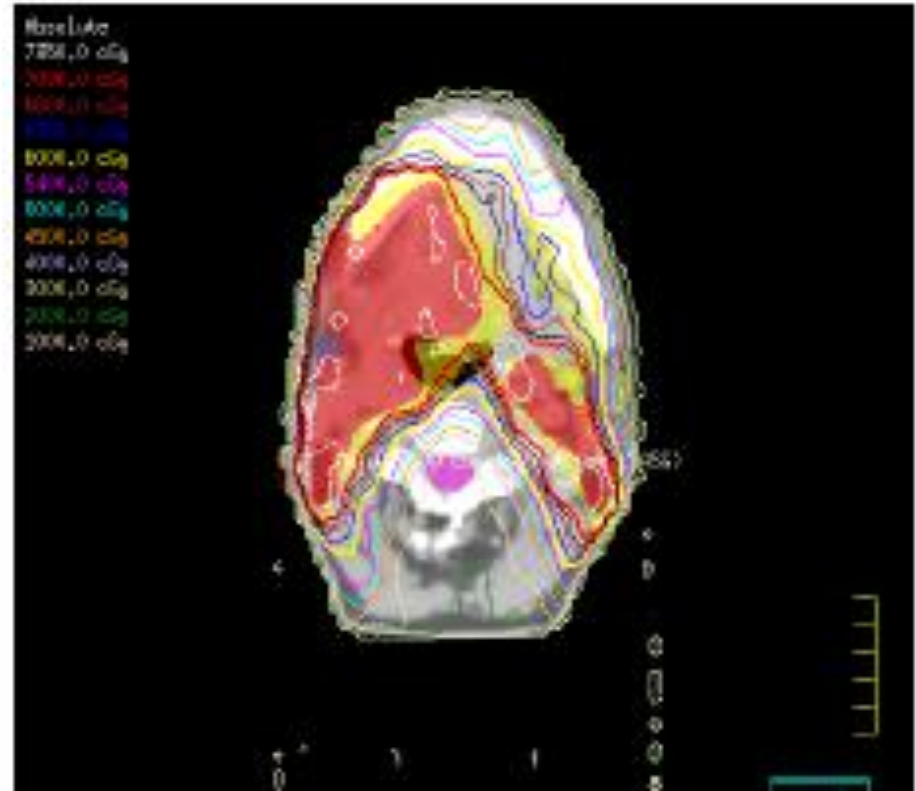
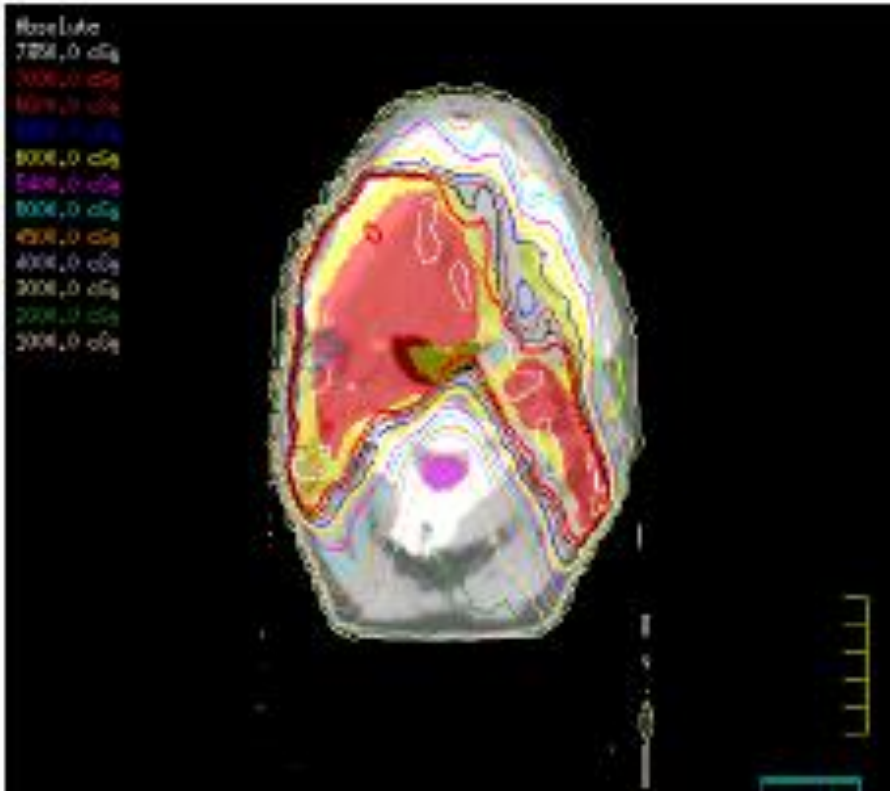


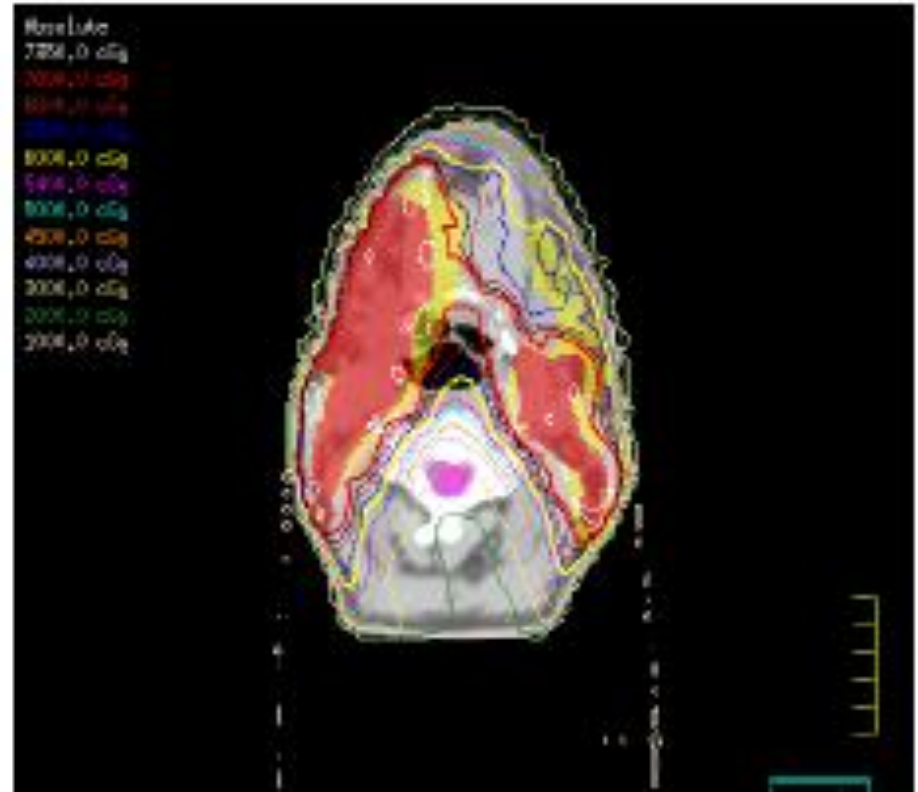
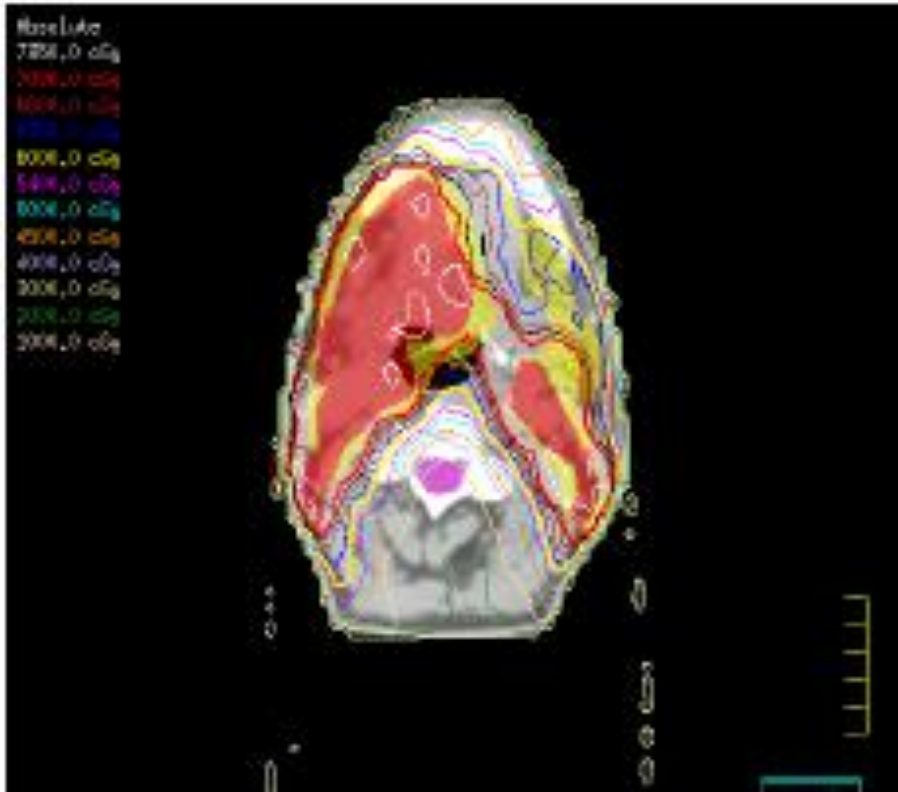


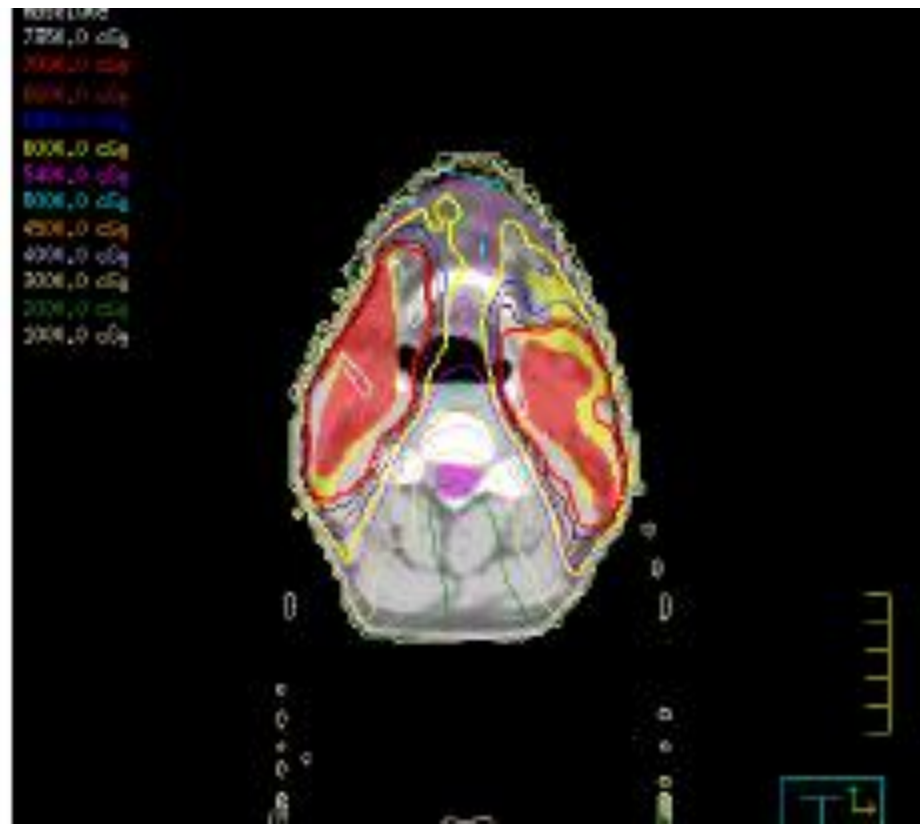




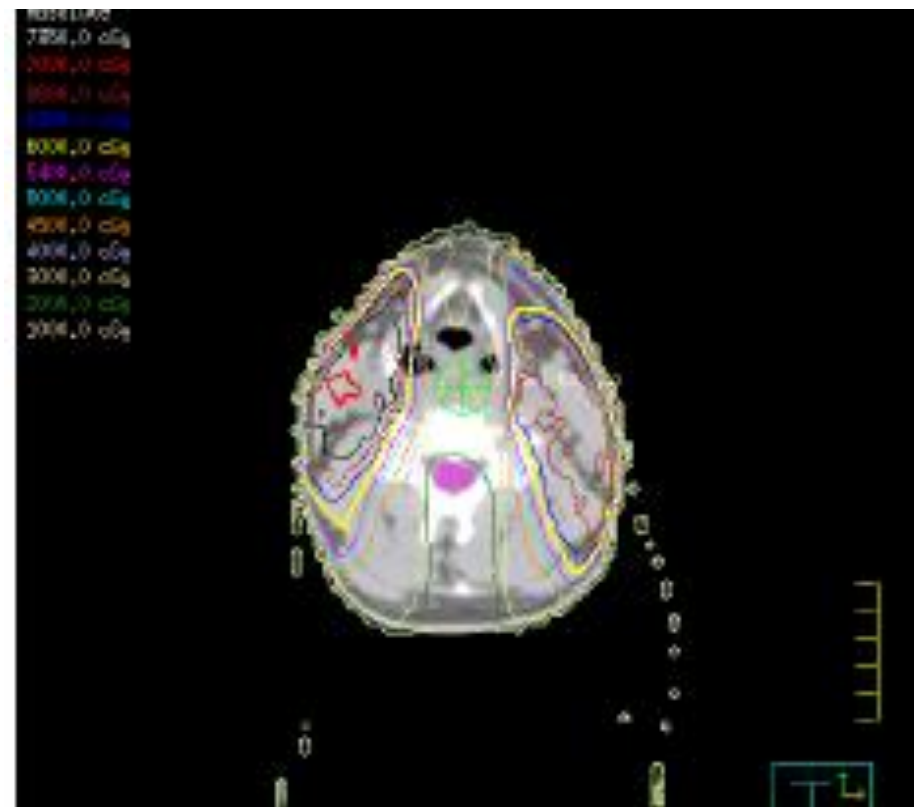


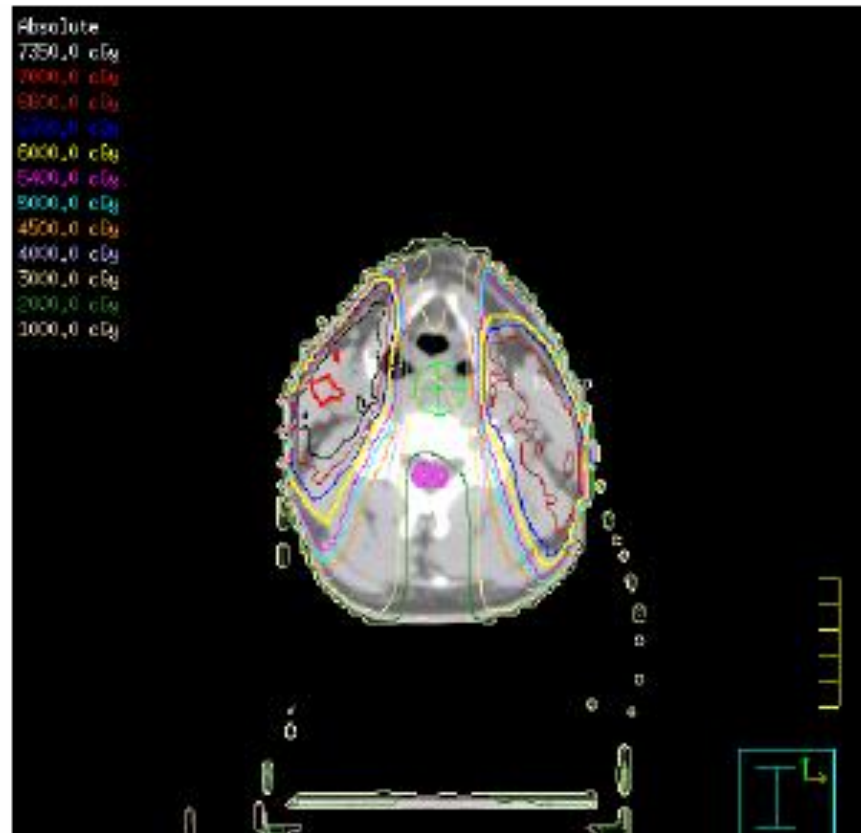


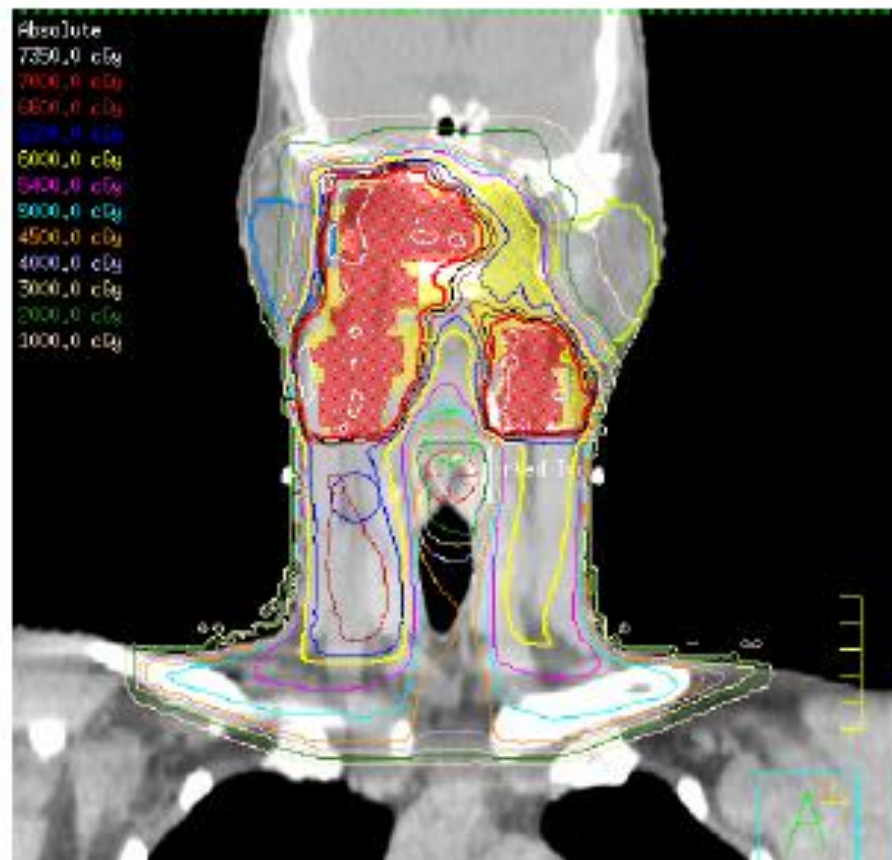
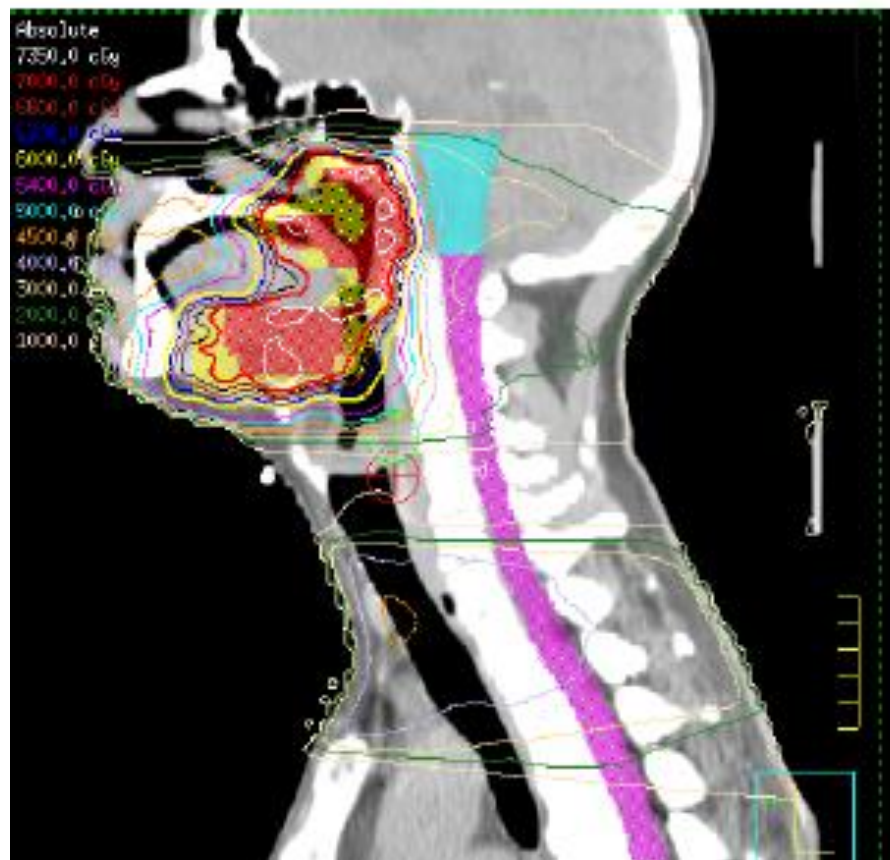








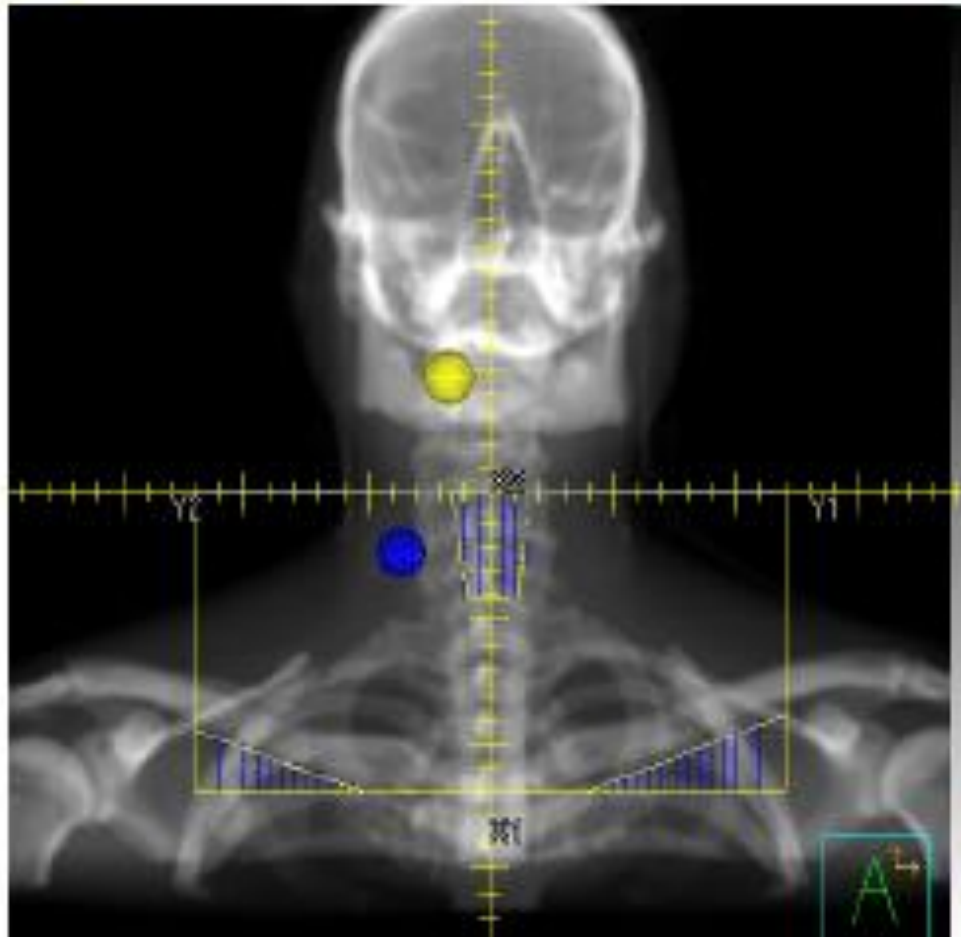




# Matched to low neck field:

- 40 Gy in 20 daily fractions AP/PA with larynx block

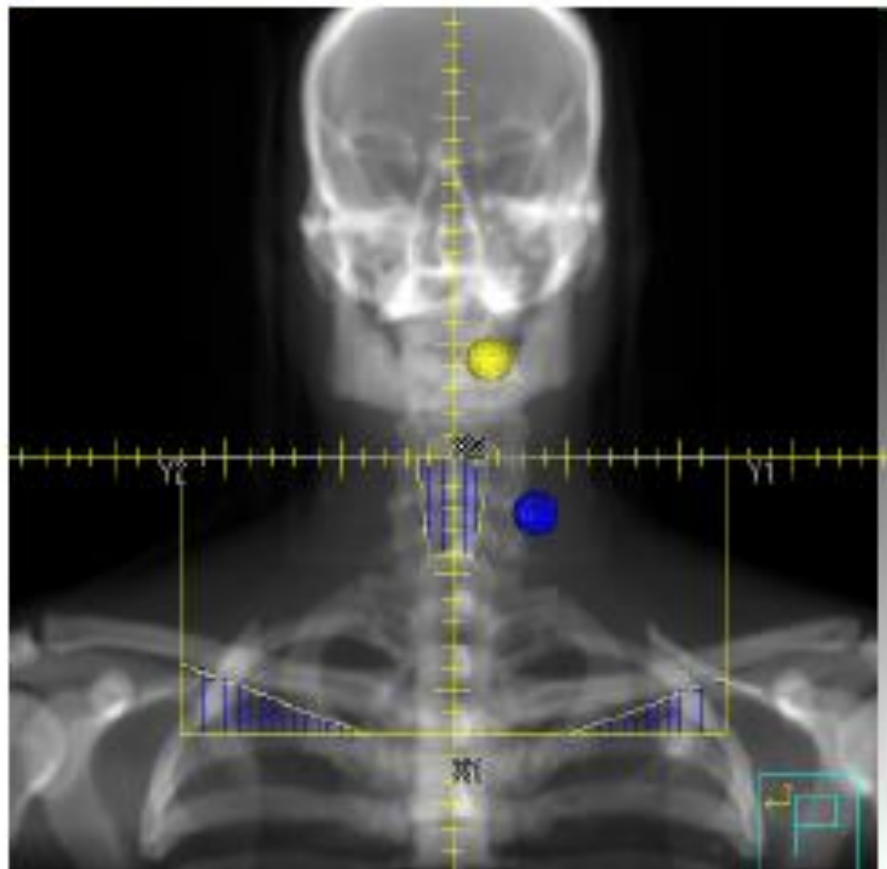
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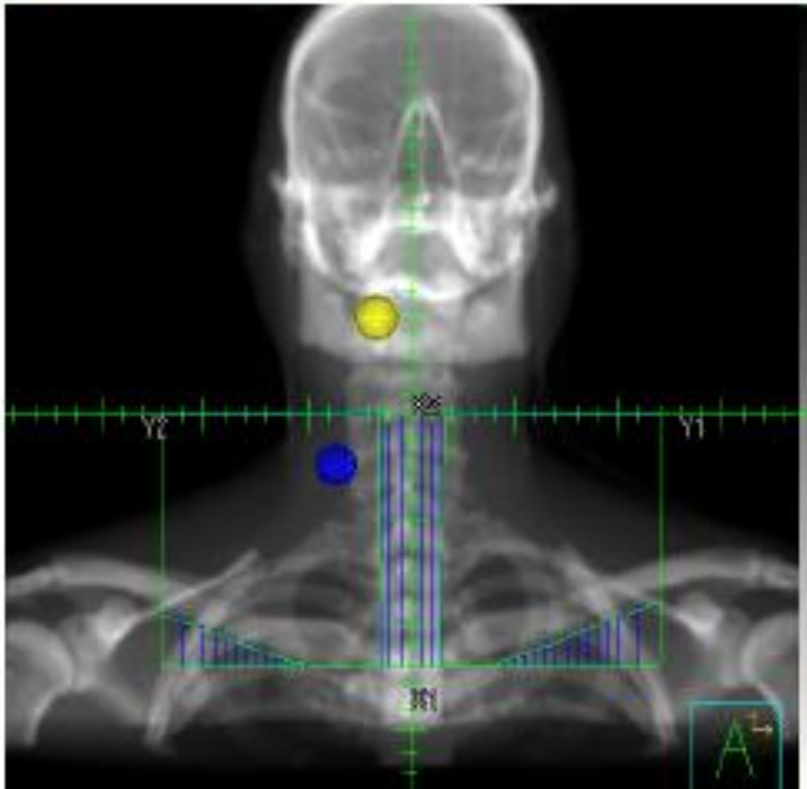
Name: k PA SCV, Field: k



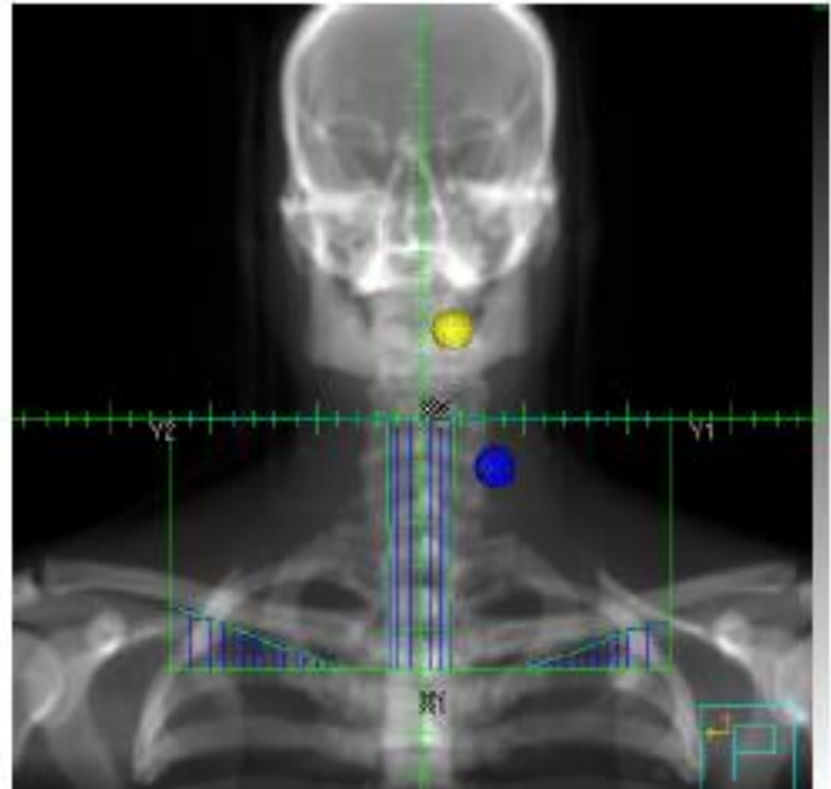
# Matched to low neck field:

- 10 Gy in 5 fractions with midline block

Name: l AP MLB, Field: l



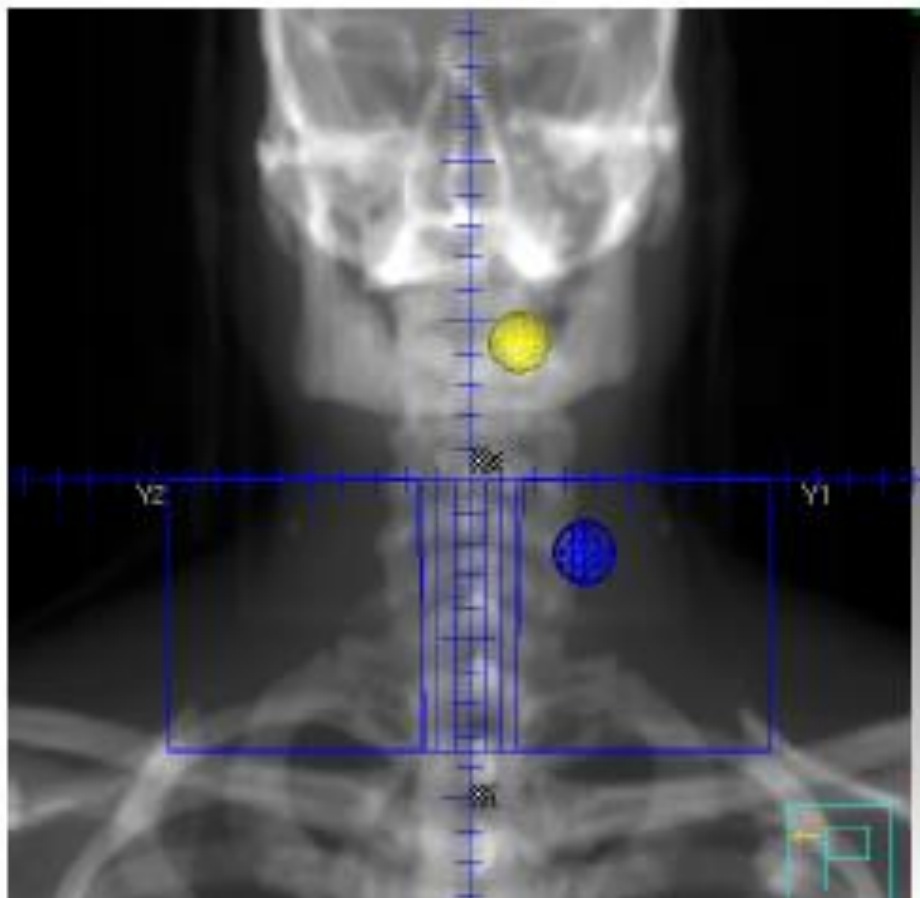
Name: m PA MLB, Field: m



# Matched to low neck field:

- 10 Gy in 5 fractions for bilateral boost

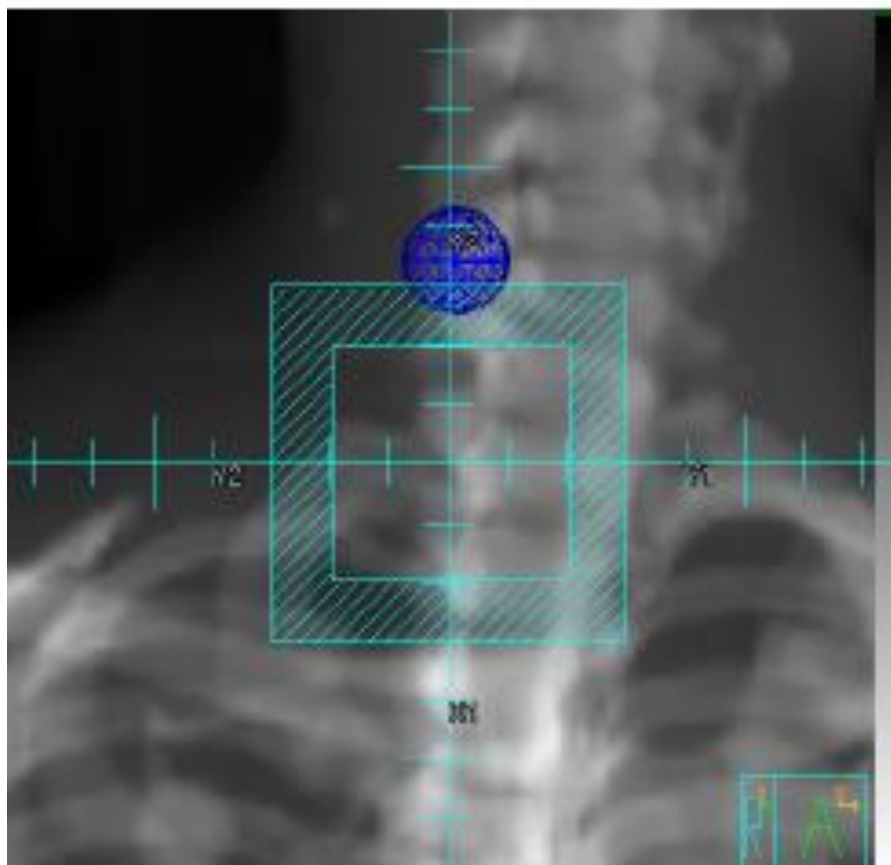
🌀 Name: n PA Bilat MNB, Field: n



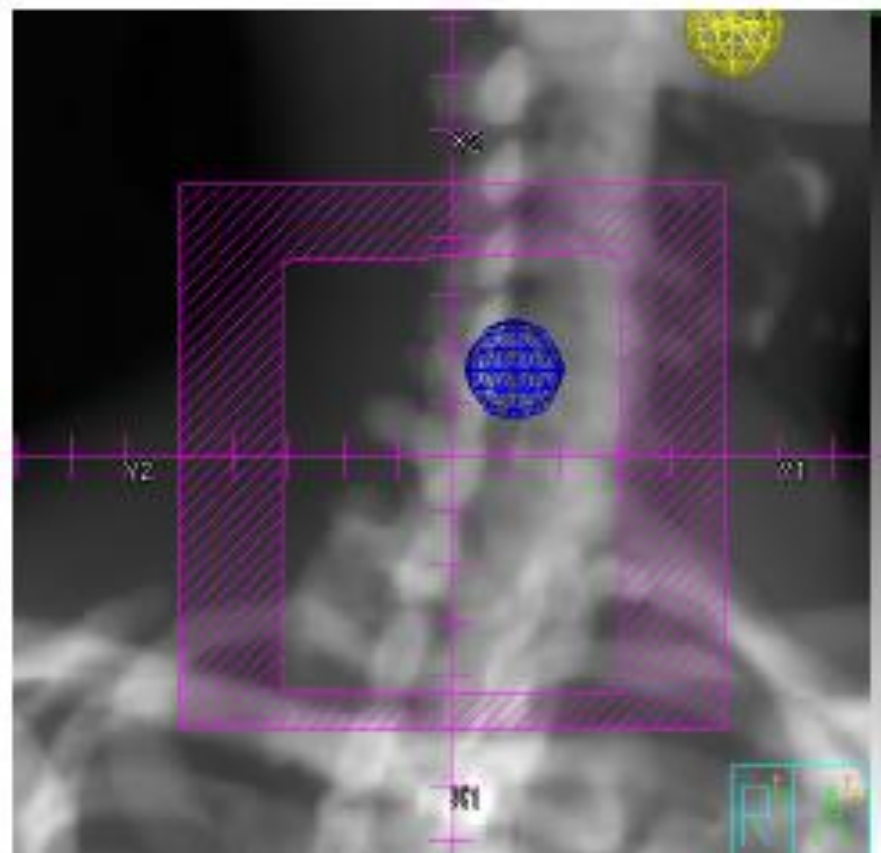
# Matched to low neck field:

- 6 Gy in 3 fractions right low neck boost

Name: p Rt Nodal e- Boost2, Field: p



Name: o Rt Nodal e- Boost, Field: o





# Thank you!

- Dr. Adam S. Garden
  - Professor
  - Department of Radiation Oncology
  - University of Texas MD Anderson Cancer Center