Palliative Radiotherapy for Advanced Non-Melanoma Skin Cancer

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Patient presentation

- 90-year-old woman presented to ED with pain and difficulty eating due to left parotid mass
- ~2 weeks after surgical resection of multiple squamous cell carcinomas of face and FNA left parotid mass at outside facility
- Parotid mass had grown in interval and left cheek incision showed gross tumor
Workup

• CT: numerous positive left cervical lymph nodes
  – 8-cm left parotid mass encasing internal carotid artery
  – Also left levels 2, 3, supraclavicular nodes

• ENT judged her tumor burden was unresectable
General Principles

• Definitive treatment requires surgical resection of gross disease
  – Radiation therapy has very poor outcomes for control of gross disease
  – Chemotherapy has not been shown effective in skin cancer

• If considered unresectable:
  – DISCUSS OPTIONS FOR SUPPORTIVE CARE INCLUDING HOSPICE
  – Radiation therapy alone is standard for palliative treatment

• Consider life expectancy (including performance status and comorbidities), burden for patient and caregivers
General management

• Multiple dose fractionations have been effective at improving symptoms with minimal toxicity
  – QUAD shot: 14 Gy in 4 fractions, delivered BID at least 6 hours apart on 2 consecutive days
  – 20 Gy in 2 fractions, delivered 1 week apart
  – 30 Gy in 10 fractions, delivered daily M-F
• May consider treating with orthovoltage or electron radiation if tumor causing symptoms is superficial
Photon radiation planning

- Standard simulation for head and neck treatment
- Supine, arms at side
- Head at 90 degrees
- Thermoplastic mask
- No need for IV contrast since only targeting bulky disease
- Consider bolus for open wounds
- May wire areas of tumor bulk on skin
Treatment Planning

• Options include parallel opposed beams, wedge pair, or 3D conformal—IMRT is unlikely to improve toxicity given low doses

• GTV: generally only treating bulky disease causing symptoms, not all tumor visible on CT

• No CTV expansion: not treating microscopic disease

• PTV expansion generally 0.3-1.0 cm--depends on immobilization, use of image guidance, institution
Patient Radiation Treatment Plan

- Treated to 20 Gy in 2 fractions, 1 week apart
- PTV = GTV and associated nodal stations + 3 mm
- 6 MV photon beams
- IMRT with CBCT
The QUAD SHOT— a phase II study of palliative radiotherapy for incurable head and neck cancer

- **PTV:** Large volume gross disease + 2 cm
- **Most patients were treated with parallel opposed fields with dose prescribed at midplane**
  - 14 Gy in 4 fractions, delivered BID at least 6 hours apart on 2 consecutive days
- **Repeat at 4-weekly intervals for up to 2 more courses if no tumor progression or significant acute toxicity**
- **9 patients with grade 1 mucositis, 3 with grade 2**
- **85% stable or improved dysphagia**
- **56% stable or improved pain**
- **67% stable or improved performance status**

Squamous cell carcinomas metastatic to cervical lymph nodes from an unknown head and neck mucosal site treated with radiation therapy with palliative intent

- 40 patients with squamous cell carcinoma of unknown head/neck treated with palliative intent
- 22 treated to 30 Gy in 10 fractions
- 18 treated to 20 Gy in 2 fractions
- No severe acute or late complications
- Symptomatic response at 1 year: 68% continuous, 38% split-course

Additional Considerations

• If treating with QUAD SHOT or 10 Gy x 2, see patient in clinic before treatment on second day– ensure that toxicity was minimal

• Discuss life expectancy (if patient desires) and low likelihood of cure with treatment

• Ensure good supportive care with symptom control– effects of radiation will not be immediate
Patient Outcome After Radiation

• ~1 month later: All visible and palpable tumor had regressed; no toxicity from RT
  • Eating regular diet without issues
  • Dobhoff tube was removed
• ~2 months later: New-onset contralateral cervical lymph nodes
  • Treated with 20 Gy in 5 fractions
• Discharged to hospice and died at home 2 months later
References
