Soft Palate Cancer Post Radical Surgery with Positive Surgical Margin (R1 Residual Tumor) post Adjuvant CCRT with Isolated Left Pre-Auricular Nodal Failure: the Role and Treatment Consideration of Re-Radiotherapy Post Excision Biopsy

Case Number: RT2009 – 105-2(M)

Potential Audiences: Intent Doctor, Oncology Special Nurse, Resident Doctor

Purpose: to present a case with soft palate cancer post radical surgery with positive surgical margin, post post-op adjuvant CCRT, with isolated left pre-auricular nodal failure; to discuss the role and treatment consideration of re-irradiation after excision biopsy

Scenario: You are radiotherapy (RT) Intent Doctor/Special Nurse/Resident Doctor, and you are assigned to evaluate the following patient before visiting of your RT attending physician. Please review the following description carefully; your RT attending physician will visit this patient later and discuss with you after your review.

Case Presentation:
This 51–year-old male patient was re-referred to us for RT assessment of ‘soft palate cancer post OP with positive cutting end post CCRT (2008/12), with left pre-auricular nodal recurrence post surgical resection (2009/01) with positive cutting end again.’

S:
1. In 2008/08, soft palate cancer was histologically proven. Radical surgery was done and stage II was defined. But, positive cutting end was found.
2. Between 2008/10 and 2008/12, post-op CCRT was done with a RT dose of 7200 cGy in 40 fractions.
3. In 2009/01, a nodal lesion with size about 1.5 cm over the left pre-auricular region.
   Regional recurrence was highly suspected. Surgical resection was done and pathology reported squamous cell carcinoma, poorly differentiated, with positive cutting end.
4. Today, you visited this patient and his family at the ward.

Hx: NDKA; no major medical disease history

O:
1. ECOG: 1, ambulatory status, speech: slurred
2. HEENT: soft palate defect post surgery; surgical scar on bilateral necks; no palpable Lns; a surgical scar over the left pre-auricular region with stitches in place.
3. ***Pathology in 2008/08, soft palate tumor, radical surgery and neck dissection: squamous cell carcinoma, poorly differentiated, of the soft palate, 2.2x1.8x1.0 cm, with deep margin invasion, with vascular permeation, LNs (0/23).
4. ***Pathology in 2009/01, left pre-auricular region, LN resection: metastatic squamous cell carcinoma, poorly differentiated, with positive cutting end; nodal size about 1.5 cm.
4. HN CT in 2008/08: soft palate tumor with 23 x 24 x 8 mm in size
5. ABD sono and CXR and Bone scan in 2008/08: all neg.
6. HN MRI in 2009/01: a nodular lesion with size about 1.8 cm over the left pre-auricular region, suspect metastasis.
Key Image(s):

Fig. 1.

Fig. 2.

Fig. 3.
Questions & Discussions:
(Please answer the following questions commented from your RT attending physician.)

Q1: What are your findings/interpretations for the above key image(s)?

Q2: What is your clinical cancer stage, according to the AJCC 2006, for this case?

Q3: What is your pathologic cancer stage, according to the AJCC 2006, for this case?

Q4: What are your Oncology Diagnosis / Assessments for this case?

Q5: What is your Oncology Plan for this case?

Q6: What is your Radiotherapy Plan for this case?
(Please reply with the following form: Indication/Contraindication, Goal, Target & Volume, Technique, and Dose & Fractionation.)
Questions & Discussions: (with potential answers)
(Please answer the following questions commented from your RT attending physician.)

Q1: What are your findings/interpretations for the above key image(s)?
A1: As described in the last attached page.

Q2: What is your clinical cancer stage, according to the AJCC 2006, for this case?
A2: cT2N0M0, stage II (2008/08, AJCC 2002); rcT0-pN1(1.5cm)-cM0, rc-stage III (2009/01, AJCC 2006)

Q3: What is your pathologic cancer stage, according to the AJCC 2006, for this case?
A3: pT2N0(0/23)M0, stage II (2008/08, AJCC 2002)

Q4: What are your Oncology Diagnosis/Assessments for this case?
A4: Squamous cell carcinoma, poorly differentiated, of the soft palate, cT2N0M0, stage II (2008/08, AJCC 2006), post radical surgery and bilateral neck dissection (2008/08), pT2N0(0/23)M0, stage II (2008/08, AJCC 2006), with positive cutting end on the deep margin, post CCRT (2008/12, 7200 cGy in 40 fractions) with left pre-auricular LN recurrence, post surgical resection (2009/01), rcT0-pN1(1.5cm)-cM0, rc-stage III (2009/01, AJCC 2006) with positive cutting end (R1 residual tumor)

Q5: What is your Oncology Plan for this case?
A5:
1. Planned post-op adjuvant CCRT after R1 excision biopsy
2. Arrange 3DCT for preparing IMRT
3. Explain and RTC 2 weeks later

Q6: What is your Radiotherapy Plan for this case?
(Please reply with the following form: Indication/Contraindication, Goal, Target & Volume, Technique, and Dose & Fractionation.)
A6: RT Plan may be designed as the following one:
(1). Indication: nodal recurrence post excision biopsy with positive surgical margin
(2). Goal: curative in post-op adjuvant CCRT setting
(3). Target & Volume: surgical bed on the left pre-auricular nodal basin
(4). Technique: mixed CT-based IMRT technique with photon beam and electron boost
(5). Dose & Fractionation: 6300 cGy in 35 fractions

Further Readings & References:
NCCN 2009 & Perez 2008 & AJCC 2006

Radiation Oncologist
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Fig. 1. One month after completion of RT, a 1.5-cm nodule over the left pre-auricular region was noted in the following MRI (as the white arrow).

Fig. 2. Post-operative, no evidence of residual lesion in this cut of the CT; a limited soft tissue defect with a well-covered skin over the surgical bed (as the white arrow).

Fig. 3. A small nodule with size about 1 cm inside the residual left parotid gland, suspect a new nodal failure? (as the white arrow).