RTOG 1008

A Randomized Phase II/Phase III Study of Adjuvant Concurrent Radiation and Chemotherapy versus Radiation Alone in Resected High Risk Malignant Salivary Gland Tumors

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Treatment:

- **Arm I**

  3D-CRT or IMRT 5x week for 6-6.5 weeks. Cisplatin IV over 60 minutes on days 1, 8, 15, 22, 29, 36, and 43 during radiotherapy.

- **Arm II**

  3D-CRT or IMRT 5x week for 6-6.5 weeks

DISEASE CHARACTERISTICS:

- Pathologically proven diagnosis of a malignant major salivary gland tumor of the following histologic subtypes:
  - High-grade mucoepidermoid carcinoma
  - Salivary duct carcinoma
  - High-grade adenocarcinoma
- Surgical resection with curative intent within 8 weeks prior to registration
- All patients must have a Medical Oncology evaluation within 4 weeks prior to registration
- Pathologic stage T3-4 or N1-3 or T1-2, N0 with a close (≤ 1mm) or microscopically positive surgical margin; patients must be free of distant metastases based upon the following minimum diagnostic workup:
  - History/physical examination within 8 weeks prior to registration
  - Radiologic confirmation of the absence of hematogenous metastasis within 12 weeks prior to registration; at a minimum, contrast CT imaging of the chest is required (PET/CT is acceptable)
- No patients with residual macroscopic disease after surgery
- No patients with salivary gland malignancies originating from the minor salivary glands
- No patients with histologies other than high-grade mucoepidermoid carcinoma, high-grade adenocarcinoma, or salivary duct carcinoma

PATIENT CHARACTERISTICS:

- Zubrod performance status 0-1
- Absolute neutrophil count (ANC) ≥ 1,800 cells/mm^3
- Platelets ≥ 100,000 cells/mm^3
- Hemoglobin ≥ 8.0 g/dL (the use of transfusion or other intervention to achieve hemoglobin ≥ 8.0 g/dL is acceptable)
- Serum creatinine < 2.0 mg/dL
- Total bilirubin < 2 x the institutional upper limit of normal (ULN)
- Aspartate aminotransferase (AST) or alanine aminotransferase (ALT) < 3 x the institutional ULN
- Negative serum pregnancy test within 2 weeks prior to registration for women of childbearing potential
- Women of childbearing potential and male participants who are sexually active must practice adequate contraception during treatment and for 6 weeks following treatment
- Not pregnant or nursing
- Patients must be deemed able to comply with the treatment plan and follow-up schedule
- Patients must provide study specific informed consent prior to study entry, including consent for mandatory tissue submission for central review
- No prior invasive malignancy (except non-melanomatous skin cancer) unless disease free for a minimum of 3 years (for example, carcinoma in situ of the breast, oral cavity, or cervix are all permissible)
- No severe, active co-morbidity, defined as follows:
  - Unstable angina and/or congestive heart failure requiring hospitalization within the last 6 months
  - Transmural myocardial infarction within the last 6 months
  - Acute bacterial or fungal infection requiring intravenous antibiotics at the time of registration
  - Chronic obstructive pulmonary disease exacerbation or other respiratory illness requiring

  - Hepatic insufficiency resulting in clinical jaundice and/or coagulation defects (coagulation parameters are not required for entry into this protocol)
  - Acquired immune deficiency syndrome (AIDS) based upon current Centers for Disease Control (CDC) definition (HIV testing is not required for entry into this protocol)
  - Protocol-specific requirements may also exclude immunocompromised patients
  - Pre-existing ≥ grade 2 neuropathy
- No significant pre-existing hearing loss, as defined by the patient or treating physician

PRIOR CONCURRENT THERAPY:

- See Disease Characteristics
- No prior systemic chemotherapy or radiation therapy for salivary gland malignancy (prior chemotherapy for a different cancer is allowable)
  - No prior radiotherapy to the region of the study cancer that would result in overlap of radiation therapy fields
  - No prior organ transplant
  - No concurrent hematopoietic growth factors (e.g., G-CSF or pegfilgrastim) during radiotherapy
  - No concurrent erythropoiesis-stimulating agents