HEAD AND NECK SARCOMA: A POPULATION-BASED SURVIVAL ANALYSIS

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Abstract

Objectives/Hypothesis: To describe the behavior of several histologic types of sarcomas of the head and neck and to determine prognostic factors for survival using a large cancer registry.

Methods: A retrospective population-based cohort of patients diagnosed with head and neck sarcoma (1973-2005). The nine most common histologic types of head and neck sarcoma in the registry were selected for analysis. Overall survival and disease-specific survival were calculated by histologic type. Pertinent patient data including age, gender, race, histologic factors for overall and disease-specific survival. Those factors found to be significant were incorporated into multivariate Cox regression analysis.

Results: The cohort included 3,739 patients with a mean age at diagnosis of 61.8 years for all histologic types and a male to female ratio of 2.2 to 1. Of the nine histologies included, malignant fibrous histiocytoma (MFH) was the most common (43.6%), followed by leiomyosarcoma (13.8%), osteosarcoma (9.5%), chondrosarcoma (9.2%), fibrosarcoma (7.5%), rhabdomyosarcoma (6.8%), liposarcoma (6.2%), synovial sarcoma (2.5%), and Ewing sarcoma (1%). The overall and disease-specific survival were calculated by Kaplan-Meier analysis and are shown in Table 1. Log-rank test comparisons found age, race, sex, histologic type, grade, stage and treatment to be significant predictors of overall and disease specific survival (p<0.01). On multivariate Cox regression, independent predictors of overall and disease-specific survival were:

- Age
- Histologic type
- Grade
- Stage
- Treatment

Conclusions: Age, stage, grade, histologic type, and treatment are independent predictors of overall and disease-specific survival.