INTRODUCTION

Salivary duct carcinoma (SDC), an uncommon and aggressive malignancy, notable for a high disease mortality (>60%) despite radical treatment approaches. It has historically posed a diagnostic and research challenge due to its rarity and an inconsistent histopathologic criteria for diagnosis.

Over the past decade, advances in molecular and genetic techniques have allowed a more rigorous classification of all salivary malignancies. This has generated renewed interest, with current efforts focused on optimizing treatment strategies. We present our contemporary experience with parotid salivary duct carcinomas.

ABSTRACT

OUTCOME OBJECTIVE:

- Analyze the treatment approach for these rare salivary gland neoplasms at our institution.
- Demonstrate observed patterns of failure and survival for high-grade salivary duct carcinoma (HGSDC) involving the parotid glands.

METHODS:

Clinical data on 17 patients with non-metastatic HGSDC involving parotid salivary glands from 1998 – 2012, was abstracted from our institutional database. Inclusion required surgical resection with postoperative radiotherapy (RT) [n=8] or concurrent chemoradiotherapy (CHEMRT) [n=9]. Demographics, histopathologic features, treatment course, and clinical outcomes were recorded. Specimens were re-reviewed by a dedicated H&N pathologist. Overall survival (OS) and disease free survival (DFS) were estimated via Kaplan-Meier method and comparisons made with the log-rank test.

RESULTS:

- Median patient age was 65 years (range 52-83) with a male:female ratio of 7:5:1 and median follow up of 37 months. Most commonly, these cases presented as pT4a (n=14) with adverse clinical features, including perineural invasion (76.5%), positive lymph nodes (76.5%), and vascular invasion (58.8%).
- 3 year DFS and OS were 35.7% and 61.4% respectively. The pattern of treatment failure was predominately distant (n=11) versus locoregional (n=3). Univariate analysis of demographic, histopathologic, and treatment characteristics did not reveal a significant association with OS or DFS. Median survival after metastasis was 13 months, with only a single patient having a sustained treatment response > 2 years after disease dissemination.

CONCLUSION:

In this series, we highlight the aggressive nature of high-grade salivary duct carcinoma, which has a significant risk of distant recurrence and poor overall survival.