Esthesioneuroblastomas in an Asian Population: Similarities and Differences

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ABSTRACT

Esthesioneuroblastoma is an uncommon tumor of the olfactory epithelium. With a reported incidence of 3% for sinonasal neoplasms, there has been more than 1000 cases reported in the literature mainly as single case reports or case series1. In our centre, the largest tertiary hospital in Singapore, which sees predominantly Asian patients for craniofacial resections, we note significant differences between our experience with esthesioneuroblastomas and the published ones.

INTRODUCTION

Over a period of 13 years, a total of 48 patients underwent craniofacial resections. The majority of our patients had esthesioneuroblastomas (50%) (table 1). For patients with esthesioneuroblastomas, there was a peak incidence in the 6th decade of life (figure 1) and this happened in 3 patients (62%). The top 3 symptoms were epistaxis, blocked nose and rhinorhea. Recurrences occurred in 12 patients out of the 24 patients with esthesioneuroblastomas. Most occurred within the first year of diagnosis with some occurring more than 5 years after the initial diagnosis.

METHODS AND MATERIALS

This was a retrospective study of all anterior skull base tumors requiring craniofacial resections performed at Singapore General Hospital from January 1997–January 2010. We focused our data analysis on patients diagnosed with esthesioneuroblastomas as this was the commonest indication for esthesioneuroblastomas. All patients with esthesioneuroblastomas were then treated with a dual modality of craniofacial resection and adjuvant radiotherapy.

RESULTS

Post-operative complication rate occurred in 37% of patients (tables 2 and 3). Post-operative mortality occurred in 1 patient (2%) secondary to an acute myocardial infarct. The other 2 causes of death were unrelated to the primary disease. The overall 10 year survival rate 86%

DISCUSSION

In our series of craniofacial resections in Asian patients, we have a significantly higher incidence of esthesioneuroblastomas than the Caucasian population2. For patients with esthesioneuroblastomas, there was a male predilection as opposed to a female predisposition. There was also a lack of the bimodal age distribution classically described for esthesioneuroblastomas. We seek a peak in the 6th decade and no peak in the 2nd decade as classically described in the Caucasian population3. A multi-center study within Asia would be helpful in achieving greater statistical significance in the study of this tumor.

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REFERENCES