

Meeting abstract

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## Prediction of the recurrence probability in patients with parotid gland cancer

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### Background

Parotid gland carcinoma is an infrequent tumor, and series which report on these neoplasms are relatively scarce in the literature. Our aim is to identify prognostic factors in parotid gland carcinoma and develop a method to define the probability of recurrence.

### Materials and methods

Patients with parotid gland carcinoma who attended our institution from January 1981 to December 2004 and completed treatment constitute our study group. Disease-free survival was calculated using the Kaplan-Meier method. Logistic regression analysis was used to define the prognostic factors associated to recurrence.

### Results

One-hundred and twenty seven patients were included (64 male and 63 female). Mean age was 53 years. Mucoepidermoid carcinoma was found in 34.6%, adenoid cystic 15.7%, adenocarcinoma 14.3% and acinic cell carcinoma 9.4%. Median disease-free survival was 8.3 years (95% CI 4.3–12.2). Logistic regression analysis confirmed that T classification, facial nerve palsy, differentiation grade, age and surgical margins as factors associated to recurrence ( $p < 0.00001$ ). Using this model, we defined three postoperative risk groups: high, intermediate and low risk with recurrence frequency of 71.4%, 43.1% and 8.8%, respectively ( $p = 0.0001$ ). Five-year disease-free survival for these groups were 18.7%, 53.9% and 99.9%, respectively ( $p = 0.00001$ ).

### Conclusion

Our study identifies several significant prognostic factors. Consequently, a prognostic score categorization is proposed, which allows a straightforward calculation of the recurrence risk for a given case, to define therapeutic strategies, for counseling of patient and to design future trials.