

## Surgery and radiotherapy in the treatment of malignant parotid tumors: a retrospective multicenter study

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### ABSTRACT

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**Aims and background.** Major salivary gland cancers are rare, with many histologic types and subtypes. The low incidence and heterogeneity of primary parotid carcinomas makes their outcome difficult to evaluate. Treatment remains primarily surgical, but optimal therapeutic regimens have yet to be fully realized. The present study reviews the experience of three Italian institutions in the treatment of primary parotid carcinomas in order to describe the clinicopathological presentation and treatment options with emphasis on radiotherapy and to analyze the factors influencing survival.

**Methods and study design.** The records of 110 patients with primary parotid neoplastic lesions treated at three Italian institutions from 1993 to 2004 were retrospectively reviewed. Six patients were excluded from the study: 3 received surgery alone and 3 were not assessable, for a total of 104 assessable patients. Acute and late toxicity of radiotherapy was quantified following the recommendations of the RTOG/EORTC. Survival was analyzed by the actuarial Kaplan-Meier product-limit method. The influence of selected factors on 10-year disease-specific survival was analyzed.

**Results.** The 104 assessable patients were treated as follows: 11 patients received radiotherapy as their only treatment (3 with a palliative purpose) and 93 had postoperative radiotherapy. Thirty-two patients underwent neck dissection: neck lymph node metastases were found in all them. Their mean age was 60 years (range, 14-92). According to the UICC/2002 TNM Classification, 8 patients were stage I, 19 stage II, 34 stage III, 25 stage IVA, 5 stage IVB, 3 recurrent and 10 not assessable (Tx). The most frequent histologies were adenoid cystic carcinoma (n = 16), mucoepidermoid carcinoma (n = 15), and acinic cell carcinoma (n = 15). Twenty-three patients had recurrences: 10 had local recurrences, 3 neck recurrences, 9 distant metastases, and 1 patient had both local recurrence and distant metastases. No factors were observed that would negatively influence the prognosis. Actuarial 10-year disease-specific survival was 71% and actuarial 10-year local control 82%.

**Conclusions.** The treatment of salivary gland malignancies remains primarily surgical. Our study confirms the results of the literature with surgery and adjunctive radiotherapy in patients with advanced-stage disease. No variables were observed to influence the prognosis.

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**Key words:** parotid carcinoma, radiotherapy, retrospective study, surgery.

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