

## High-dose-rate interstitial brachytherapy in early stage buccal mucosa and lip cancer: report on the consecutive 12 patients and review of the literature

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### ABSTRACT

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**Aims and background.** To evaluate clinical outcome and toxicity using high-dose-rate brachytherapy as monotherapy in head and neck carcinomas.

**Methods** Between September 2004 and April 2010, a series of 12 patients with lip (7 patients) or buccal mucosa (5 patients) cancers were treated by exclusive interstitial high-dose-rate brachytherapy. The median age of the patients was 71.5 years (range, 47-87). Stages were T1N0M0 and T2N0M0 in 6 and 6 patients, respectively. A dose of 27 to 54 Gy in 9 to 16 fractions, 3 to 4.5 Gy per fraction, 2 fractions per day with a minimal gap of 6 h in between was delivered.

**Results.** After a median follow-up of 46 months (range, 10-85), the disease-free and overall survival was 83% (10 of 12 patients) and 50% (6 of 12 patients), respectively. The crude local control in the lip cancer patients was 100% and in the buccal mucosa cancer patients was 60%. No severe toxicity was registered.

**Conclusions.** High-dose-rate brachytherapy is feasible and safe and offers the possibility to treat patients in an outpatient regimen.

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**Key words:** buccal mucosa cancer, HDR brachytherapy, lip cancer, oral cavity cancer.

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