

# Three-dimensional conformal postoperative radiotherapy in patients with parotid tumors: 10 years' experience at the European Institute of Oncology

Daniela Alterio<sup>1</sup>, Barbara A Jereczek-Fossa<sup>1,2</sup>, Mara Griseri<sup>1</sup>, Alberto D'Onofrio<sup>3</sup>, Gioacchino Giugliano<sup>4</sup>, Maria R Fiore<sup>1</sup>, Viviana Vitolo<sup>1</sup>, Piero Fossati<sup>1,2</sup>, Gaia Piperno<sup>1</sup>, Luca S Calabrese<sup>4</sup>, Elena Verri<sup>5</sup>, Fausto G Chiesa<sup>4</sup>, and Roberto Orecchia<sup>1,2</sup>

<sup>1</sup>Division of Radiation Oncology, European Institute of Oncology, Milan; <sup>2</sup>University of Milan, Milan; <sup>3</sup>Division of Experimental Oncology, <sup>4</sup>Division of Head and Neck Surgery, and <sup>5</sup>Division of Medical Oncology, European Institute of Oncology, Milan, Italy

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## ABSTRACT

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**Aims and background.** Salivary gland malignancies are rare. The aim of our study was to investigate radiotherapy-related toxicity and clinical outcome in patients treated at our division with postoperative radiotherapy (pRT) for parotid tumors.

**Methods and study design.** Forty-three consecutive patients (32 with primary parotid tumors, 9 with parotid metastases and 2 with recurrent benign diseases) were retrospectively analyzed.

**Results.** The median follow-up was 28 months. Twenty and 5 patients had a follow-up longer than 2 and 5 years, respectively. Thirty-seven patients were alive and most of them (78%) were free from disease. The local and distant control rates were higher in patients with primary parotid tumors (94% and 87.5%) than in patients with parotid metastases (87.5% and 75%). Grade 3 radiotherapy-related acute toxicity of skin and mucosa was recorded in 20.9% and 28% of patients, respectively. Two patients (4.7%) had grade 4 skin toxicity. Late toxicity data were available for 33 (77%) patients. None of the patients developed severe (grade 3 and 4) late toxicity of soft tissues, skin or temporomandibular joints.

**Conclusions.** Postoperative radiotherapy is a feasible treatment that was found to be effective mainly in patients with primary parotid tumors. Toxicity was acceptable but could probably be further reduced using more advanced radiotherapy techniques. Longer follow-up is required to achieve definitive results.

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**Key words:** parotid tumor, postoperative radiotherapy, toxicity, adjuvant treatment.

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**Correspondence to:** Daniela Alterio, MD, European Institute of Oncology, Via Ripamonti 435, 20141 Milan, Italy. Tel +39-02-57489037; fax +39-02-94379227; e-mail Daniela.alterio@ieo.it

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