

## Combined chemoradiation for head and neck region myxofibrosarcoma of the maxillary sinus

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### ABSTRACT

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**Aims and background.** Adult sarcomas of the head and neck region (HNSs) are considered a rare clinicopathological entity. They account for only 2-15% of all adult sarcomas and for less than 1% of all head and neck malignancies. The preferred initial treatment option is wide surgical excision. Whenever surgery is considered infeasible, a frontline combined-modality approach including radiotherapy and chemotherapy might be proposed. We here report on a case of localized sarcoma of the maxillary sinus treated with induction chemotherapy and subsequent intensity-modulated radiation therapy (IMRT), achieving a persistent complete remission status.

**Methods.** A 66-year-old man was referred to our institution hospital for left-sided facial pain with swollen left cheek and ipsilateral facial palsy. Magnetic resonance imaging showed a mass within the left maxillary sinus extending to the orbital floor and adjacent alveolar bones. Histological examination of the biopsy specimen demonstrated a myxofibrosarcoma. The patient underwent induction chemotherapy with gemcitabine 900 mg/m<sup>2</sup> (days 1-8) and taxotere 80 mg/m<sup>2</sup> every 3 weeks for 3 cycles and sequential simultaneous integrated boost (SIB) IMRT up to a total dose of 70 Gy/35 fractions to the macroscopic disease with 59.5 Gy/35 fractions to the level IB-II lymph nodes in the left neck.

**Results.** Treatment was well tolerated with mild acute toxicity. Complete remission was achieved at restaging MRI 6 months after the end of the combined modality approach. The patient remains in complete, unmaintained clinical and instrumental complete remission 18 months after treatment, with no late side effects.

**Conclusion.** Combination therapy with induction chemotherapy and sequential SIB-IMRT could therefore be a promising modality for head and neck sarcomas, allowing for simultaneous tumor control and normal tissue sparing.

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**Key words:** head and neck sarcoma, myxofibrosarcoma, radiotherapy, combined modality, IMRT, chemotherapy.

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