

Case Report of Long-Term Follow-Up of an Unusual Oral *Rhabdomyosarcoma* with an Intraosseous Origin

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Abstract

Background: *Rhabdomyosarcoma*, originating from skeletal muscle tissue, is the most prevalent soft tissue sarcoma in children. Its occurrence within the oral cavity is relatively uncommon, with jaw involvement being extremely scarce, accounting for only 0.04% of all head and neck malignancies. This report aims to present an exceptionally rare case of oral *rhabdomyosarcoma* with intraosseous origin in the jawbone of a 12-year-old boy. It evaluates the long-term efficacy of a novel combined surgical treatment approach and its impact on the patient's health.

Method: Following several unsuccessful chemotherapy treatments, the tumor was removed with debulking surgery. Considering the patient's young age, the surgical plan was carefully modified to minimize psychological and social problems, decrease post-operative consequences such as disabilities, and maintain the patient's look. A marginal resection from both inside and outside of the mouth was selected, resulting in a thorough resection of the tumor to preserve mandibular continuity.

Results: After the surgical intervention and follow-up chemotherapy, radiographic evaluations showed no signs of abnormalities or metastasis. The patient was scheduled for annual follow-up appointments to monitor long-term functionality and satisfaction with the treatment outcomes.

Conclusion: Nearly a decade after the surgery, the patient remains alive, in good health, fully functional, and shows no signs of tumor recurrence.

Keywords: Debulking surgery, Sarcoma, Muscle neoplasms, *Rhabdomyosarcoma*

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