

Central neurilemmoma of maxilla

A case report

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Central neurilemmomas in the oral cavity are tumors of rare incidence. A review of related literature is included. A case of central neurilemmoma of the maxilla in a 14-year-old girl, the surgical treatment, and results of a 1-year radiographic follow-up examination are presented. (*ORAL SURG ORAL MED ORAL PATHOL ORAL RADIOL ENDOD* 1995;79:41-3)

Neurilemmomas are slowly growing, benign neoplasm derived from the sheath cells that cover myelinated nerve fibers.¹⁻²¹ They may be encapsulated and are most frequently located in the head and neck.^{1, 2, 6, 8} In a study of 41 tumors Oberman and Sulliger¹³ reported that 25% were located inside the mouth. Hatziotis et al.,⁷ in a review of intraoral neurilemmomas, found the following locations: tongue, 59; palate, 11; floor of the mouth, 10; oral mucosa, 10; gingivae, seven; lip, six; and buccal mucosa, five.

Few reports of central neurilemmomas exist. A review of the related literature showed 41 reported central neurilemmomas of the jaws: 37 in the mandible^{10, 13, 17, 18} and four in the maxilla.^{4, 9, 14, 20}

Most neurilemmomas are asymptomatic and reveal no radiographic findings; these characteristics differentiate them from odontogenic cysts or tumors. Their growth is slow, and no sex or race predilection exists. However, the lesion is more frequent in young people in their second or third decade.^{5, 6, 7, 21}

On histologic examination the neurilemmoma appears as a well-defined fibrous lesion that may present two different patterns. One pattern is Antoni type A, which is characterized by cells that have aligned nuclei, simulate a palisade, and surround an amorphous homogenous substance called Verocay body. The other pattern is Antoni type B, which is characterized by cells that are arranged in a random fashion and are surrounded by collagenous fibers.^{3, 11, 16, 18}



Fig. 1. Radiograph shows radiolucent area in relation to apex of left upper central and lateral incisors.

CLINICAL CASE

The patient, a 14-year-old girl, was referred to the Maxillofacial Surgery Department of the Clinica Alemana in Santiago, Chile, after a maxillary lesion was discovered by her orthodontist during a routine radiographic examination (Fig. 1).

The periapical radiograph revealed a well-delineated radiolucency area in relation to the apex of the left upper central and lateral incisor. No resorption of the apexes was

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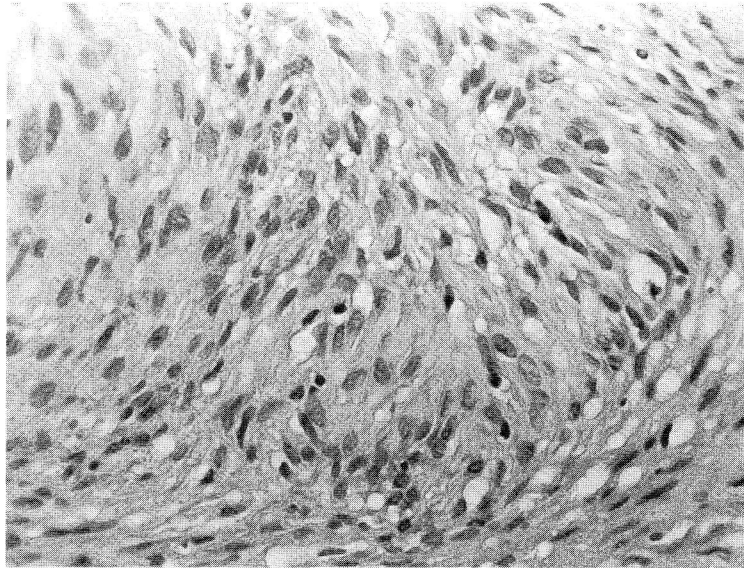


Fig. 2. Microphotograph shows swirled spindle-shaped cells (hematoxylin-eosin stain, original magnification $\times 500$)



Fig. 3. Radiographic follow-up examination after 1 year showing bone regeneration.

observed. In the occlusal radiograph the lesion could be seen extended to the palate. No expansion of the buccal or palate cortical plates was seen. The teeth near the lesion responded positively to electric stimulus.

Physical and laboratory examinations were all within normal limits. With the patient under regional local anesthesia and conscious sedation with nitrous oxide, an incision was made from the left maxillary bicuspid to the right maxillary lateral. The flap was elevated, and the thin buccal cortical plate was removed, thus revealing the lesion. It was impossible to identify a capsule. The removed tissue was friable and of a grayish yellow color. A complete surgical enucleation was performed, and the residual bone bed was left clean. No resorption of the apexes of the left maxillary central and lateral incisors was seen. Most parts of the histologic slides analyzed with hematoxylin-eosin staining presented spindle cells that were widely separated by matrix and were slightly eosinophilic. They had distinct cytoplasmic margins and twisted elongated shapes with a swirled position. The diagnosis was neurilemmoma, Antoni type B (Fig. 2).

Nopost operative complications occurred, and sutures were removed 1 week after the procedure. Radiographic follow-up after a year showed bone regeneration (Fig. 3).

DISCUSSION

The clinical course and the radiographic appearance of neurilemmoma is not characteristic; therefore clinical diagnosis is not possible and can only be established on histologic examination.^{4, 6, 7, 16}

Although neurilemmoma is usually an asymptomatic neoplasm, cases accompanied by pain and paresthesia have been reported.^{7, 12, 16}

In certain cases involving large-caliber nerves, from which the neurilemmoma develops, the nerve may be observed in connection with the capsule.¹³ Treatment is conservative surgical excision with no evidence of

cases of recurrence.¹⁰ Malignant change is very rare.^{5, 10, 11}

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