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Abstract

A tumor of nerve origin is relatively rare in the oral region. We report a neurofibroma of the tongue observed in a 34-year-old woman.

KEYWORDS: neurofibroma, nerve origin, tumor of the tongue

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— BRIEF NOTE —

NEUROFIBROMA OF THE TONGUE: A CASE REPORT

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Abstract. A tumor of nerve origin is relatively rare in the oral region. We report a neurofibroma of the tongue observed in a 34-year-old woman.

Key words: neurofibroma, nerve origin, tumor of the tongue.

A tumor of nerve origin is relatively rare in the oral region, Murai *et al.* (1) have reported that nerve tumors were found in only 10 cases (3.7 %) out of 269 benign tumors in the oral region during a ten-year study. Of nerve tumors, neurinomas and neurofibromas are common, and they ordinarily originate in soft parts. We report a case of a neurofibroma in a 34-year-old woman.

Case report. A 34-year-old female visited our department on November 17, 1973 complaining of a painless swelling spreading from the right edge of the tongue to the sublingual region. The patient found a painless swelling on the right edge of the tongue about 2 weeks before, and because it gradually enlarged, she con-

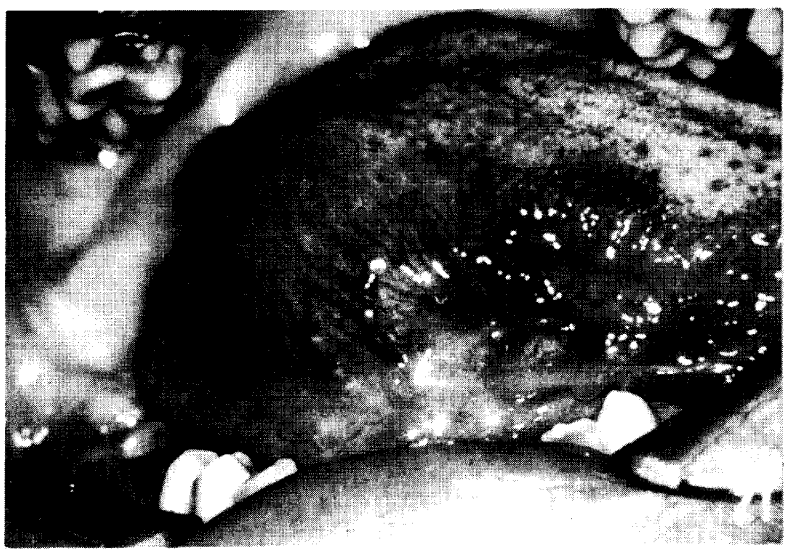

Fig. 1. Photograph of the oral cavity.

sulted a hospital and was referred to our department. Family and past histories revealed nothing in particular. She appeared physically normal and was well-nourished. Her face was symmetrical, and the bilateral submandibular lymph nodes were the size of rice grains, elastic and soft, and not tender. There was a thumb-sized, hemispherical, well-defined tumor stretching from the right edge of the tongue to the sublingual region. The tumor was smooth on the surface, normal in color, hard but elastic, and not tender (Fig. 1).

On December 11, 1973 the tumor was exposed under general anesthesia. The tumor did not adhere to the surrounding tissue and was easily enucleated *en bloc*. The postoperation course has been satisfactory without recurrence and with good movement of the tongue.

The removed tumor was almost spherical, smooth on the surface, yellowish-white, well encapsulated, hard but elastic and measured 18×18 mm. The cut surface was solid and grayish-white. Microscopically, elongated fusiform cells with curved nuclei were arranged fascicularly and an axon was identified. The interstitium consisted of collagen fibers, edema and lymphocyte infiltration. The irregular nuclei, though rich in chromatin, showed no mitosis (Fig. 2).

Discussion. In contrast to neurinomas being said to be derived from Schwann's sheaths, there are varied opinions that neurofibroma originate from Schwann's cells and mesenchymal cells (2), Schwann's cells (3) or dystrophy of nerve tissue (4).

A neurofibroma and melaninpigmented spots on the skin are unusual in the oral cavity, and, in most cases, are considered to be a part of multiple neurofibro-

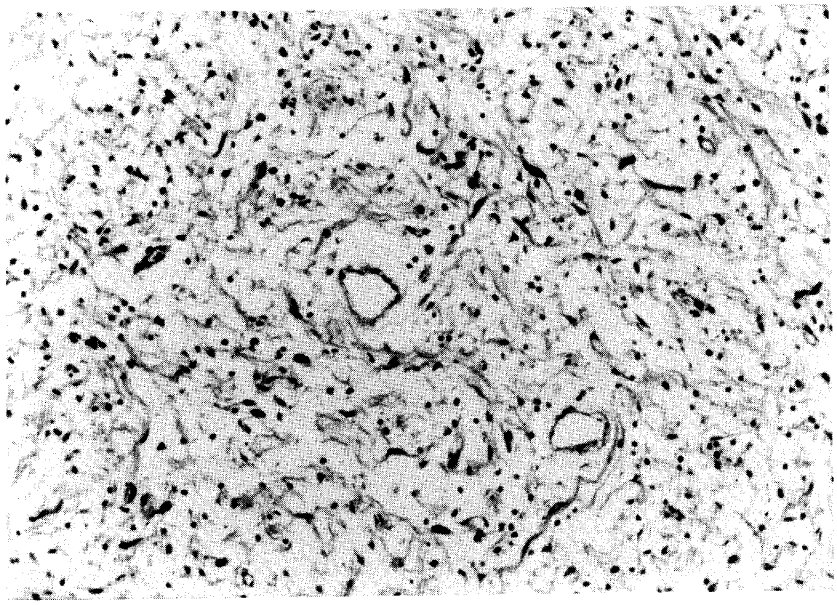

Fig. 2. Micrograph of a section of the neurofibroma.

matosis, also known as von Recklinghausen's disease (5, 7). Neurofibromas grow anywhere in the oral cavity, and according to Thoma (8) and Baden *et al.* (9), are often seen in the tongue and palate but rarely in the jaw bone. Shklar (10) observed the highest incidence in children with no difference between the sexes. Grossly, tumors usually appear normal in color on the mucosal surface, are hard, painless, not encapsulated like neurinoma, and the border is not always distinct. Cherrick & Eversole (11) noted that only 4 % of the neurofibromas they observed were encapsulated. Yonezawa (4) and Hirose *et al.* (12) also have reported no encapsulation of neurofibromas. Our case did not adhere to the surrounding tissue and had a obvious capsule.

As to complications of neurofibromas in the oral cavity, scrotal tongue (9), dental root resorption (13), bleeding (14), dysphonia and dysphagia (5, 12) have been reported. In our case, a tumor was found only on the tongue without any particular complaints. Pathohistologically widely distributed fusiform cells were proliferated with fine collagen fibers. The palisade arrangement of nuclei, as seen in neurinomas (15), was not evident.

As for treatment, surgical excision and radiotherapy are recommended, but surgical excision is considered to be the first choice regardless of whether the tumor is single or multiple. In the case of multiple tumors, the treatment must be both functional and aesthetic; a partial excision is sometimes made as a palliative or as symptoms require. Radiotherapy has been thought to predispose the patient to malignant transformation (16). Malignant transformation occurs with a frequency of 10 to 15 % in multiple tumor cases. The postoperative course of our patient has been satisfactory for nine years without recurrence.

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