Chondroma of the Tongue

—A Case Report—

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Benign cartilaginous or bony tumor may occasionally occur in organs or tissues in which cartilage or bone does not normally exist. It has been reported that chondroma usually occurs in the extraskeretal tissues such as tendons, skeretal muscles and synovias of the fingers and toes. In head and neck areas, chondroma appears infrequently in the maxilla or mandibula. Rucker[1] reported that islands of cartilage, which derived from preexisting remnants of the second branchial cartilage, are frequently present in and around tonsils. The mixed tumor of the salivery gland or teratoma may include cartilage or bone. However, chondroma of the tongue is extremely reare and only 19 cases have been reported since Berry[2] and Lang[3] first reported in 1892.

CASE REPORT

A 36 year-old man was admitted to this department on April 8, 1974, with complaint of a mass on the tongue. The patient has noticed the existence of this mass during the past 5 years, but he has not had any medical treatments until one month ago when he first visited our clinic, because of no pain or dysphagia. However, he was adviced to have otolaryngologic examination on this mass by his home doctor.

Physical examination revealed a well neutrient man. The examination of the oral cavity disclosed a soy-bean sized, smooth and round mass which located on the midline of the posterior dorsum of the tongue. The color of the mass slightly pale, and the consistency was elastic firm. The mass was slightly protrudent from the surface of the tongue and demarcated clearly from the surrounding tissue (Fig. 1). No lymphadenopathy was revealed in the neck and the submandibular region, and laboratory examinations did not demonstrate any abnormalities.

The mass was excised under local anesthesia on April 9, 1974. The removed mass was one cm. in diameter and round and spherical. As shown

in figure 2, the mass located in the subepitheliar connective tissue between the squamous epithelium and the striated muscle. The squamous epithelium covering the mass continued from the stratified squamous epithelium of the tongue, and neither erosion nor ulceration were found on the epithelium (Fig. 3). However, the epithelium was hyperkeratotic and parakeratotic, and picnotic nuclei of the squamous cells were seen in the keratinized cells (Fig. 3).

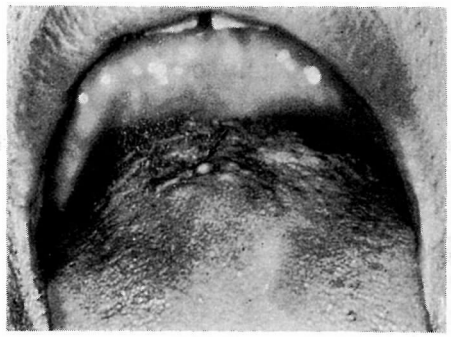

Fig. 1.

Fig. 2.

Fig 1. Photograph of the tongue showing a mass indicated by an arrow, on the midline of the posterior dorsum of the tongue.

Fig 2. The cut-surface of the mass which existed in the subepitheliar connective tissue between the stratified squamous epithelium and the striated muscle.

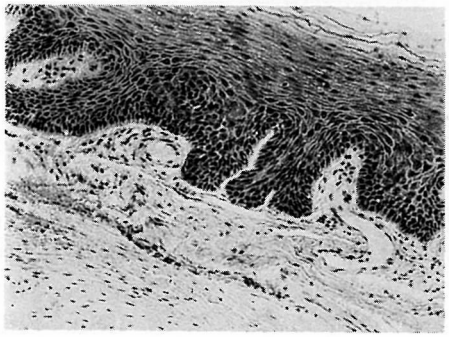

Fig. 3.

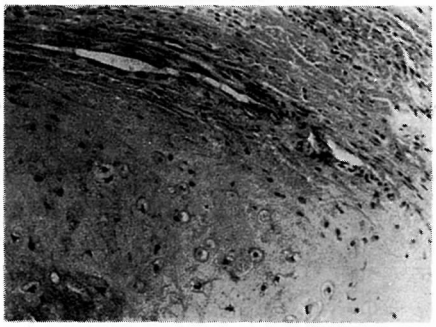

Fig. 4.

Fig 3. The high magunified microphotogram (× 100) demonstrating hyperkeratosis and parakeratosis of the stratified squamous epithelium covering the tumor.

Fig 4. The high magunified microphotogram (× 100) demonstrating that the cartilage cells gradually become flatter toward the periphery and transformed to fibroblastic, and the existance of the stellate cells in the round lacunae and the homogeneous ground substance.

The mass was characterized by the stellate cells existing in the round or semispherical lacunae in the homogeneous ground-substance, which was stained blue with Alucian blue (Fig. 4). Therefore, this mass was composed of cartilaginous tissue. The distribution of cartilage cells was not uniform, and their size was various (Fig. 3, 4). However, cartilage cells did not invade the squamous epithelium and the striated muscle, although cartilage cells present close to the surrounding tissue became flatter and transformed to fibroblastic (Fig. 4). Neither atypism nor mitosis were observed in these cartilaginous cells. Chondroma of the tongue was diagnosed on the basis of above mentioned findings.

DISCUSSION

The condroma of the tongue is extremely rare and has been reported only 19 cases [4,5,6,7,8,9,10,11], since Berry[2] and Lang[3] first reported this condition in 1892. In the review of literatures the incidence of the lingual chondroma did not restricted in either sex. The age of patients distributed between 12 and 56 years old. The evaluational course of this condition ranged from 6 months to 20 years, and the size of the tumor was reported between 3 mm and 13 cm in diameter.

Concerning the etiology of this condition, embryonal and metaplastic hypotheses have been offered. However, it has not been reported that lingual chondroma changed to malignant tumor. Although some authors stated that many cases of usual osseous chondrosarcoma arise from preexisting chondromatous tumors[12,13,14], Stout and Verner[15] assumed that the extraosseous chondrosarcomas usually arised de novo rather than from preexisting benign chondromas on the basis of their own seven cases of extraosseous chondrosarcomas of the soft tissue. Korns[16] also reported that chondrosarcomas arise de novo as a result of metaplasia of the connective tissue. In treatment only surgical excision was effective because neither recurrence nor malignant change have been reported after the surgical removal of the lingual chondroma.

Although the pathogenesis of the lingual chondroma is unknown, this is characterized by hard mass, absence of ulceration, slow and asymptomatic growth and occurrence in both sexes. As a rule the clinical diagnosis of this condition may be easily made, but it should be differentiated from other lingual hard tumors, such as fibroma and neurofibroma. It is probable that the incidence of the lingual chondroma increase if proper histologic examination is performed on the lingual mass.

SUMMARY

Chondroma of the tongue is extremely rare, and only 19 cases of this condition have been reported. A case of this condition, which was seen in a 36 year-old man, is presented.

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