

## Case Report

# Soft tissue chondroma of hard palate associated with cleft palate

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### ABSTRACT

Soft tissue chondroma of palate is very rare. It has never been reported in a cleft palate patient. We report a case of 22-year-old male who came with asymptomatic swelling on the palate since birth, along with complete cleft of secondary palate. He had symptoms related to cleft palate only, i.e., nasal regurgitation and speech abnormalities. Swelling was excised and the cleft palate was repaired. Histopathological examination revealed chondroma of the palate. The patient had no recurrence after 2 years of follow-up.

### KEY WORDS

Cleft palate; soft tissue chondroma, benign palatal tumour, palatal swellings

### INTRODUCTION

Extraskelatal soft tissue chondroma is a very rare, slow-progressing, benign tumour. It has a specific tendency for the hands and feet.<sup>[1]</sup> Chondromas are tumour-like masses formed by proliferation of chondrocytes in a mature hyaline matrix.<sup>[1,2]</sup> These tumours are very rare in the oral cavity. The tongue is the most common site.<sup>[3]</sup> In our case, chondroma was associated with cleft palate, which has never been reported before.

### CASE REPORT

A 22-year-old male came with chief complaints of asymptomatic swelling on the palate since birth. He had

symptoms of cleft palate, i.e., nasal regurgitation and poor speech. On examination, there was a complete cleft of secondary palate and the cleft was filled by non-tender, globular swelling of size 3 sq. cm. There was a linear band of soft tissue extending from the anterior part of the swelling to the upper lip mucosal surface after passing through the diastasis of the upper central incisors [Figure 1].

On computed tomography scan, a 30 mm × 28 mm size, well-defined, globular soft tissue mass was seen in the region of the hard palate, which showed fusion defect anteriorly. It had central dense areas of calcification in the mass [Figure 2].

Differential diagnosis of dermoid cyst and chondroma were kept.

Intraoperatively, the tumour was seen attached by a small pedicle to the nasal mucosa of the cleft margin on the right side. The tumour was excised along with the linear band of tissue extending to the mucosal surface of the upper lip [Figure 3]. Cleft palate repair was performed by pushback palatoplasty.

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Histopathological examination revealed hypercellular lobules of cartilage composed of evenly spaced chondrocytes of uniform size and separated by collagen and adipose tissue. No evidence of any atypia or mitosis was noted [Figure 4]. There was no recurrence after 2 years of follow-up [Figure 5].

## DISCUSSION

Soft tissue chondromas are benign cartilage-forming tumours that are usually found in close proximity to the tendon or joint capsules. The hand and foot are the predominant sites. They consist entirely of mature hyaline cartilage.<sup>[1,2]</sup> These are very rare in the oral cavity. Only five cases of soft tissue chondroma of palate have been reported in the literature.<sup>[3-6]</sup> It has never been reported in a patient of cleft palate.

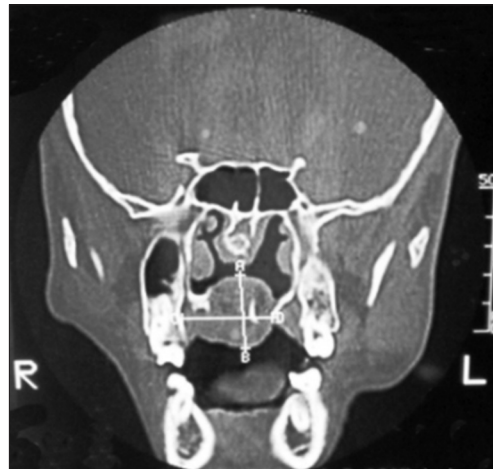
The aetiology of soft tissue chondroma is uncertain. One

theory is that these lesions are from residual embryonic tissue (embryonic remnant theory). The other theory is that these lesions are from metaplasia of pluripotential mesenchymal cells (metaplastic theory).<sup>[3]</sup> In our case, because the swelling was present since birth, this goes in favour of embryonic remnant theory. Even after a meticulous review of the literature, we could not establish the cause and effect relationship between chondroma and cleft palate. In fact, we feel that the embryonic changes in the palate during the process of cleft might lead to entrapment of mesodermal tissue (mesoderm giving rise to cartilage/bone). The presence of cleft with chondroma has value in embryonic mapping of the palate.

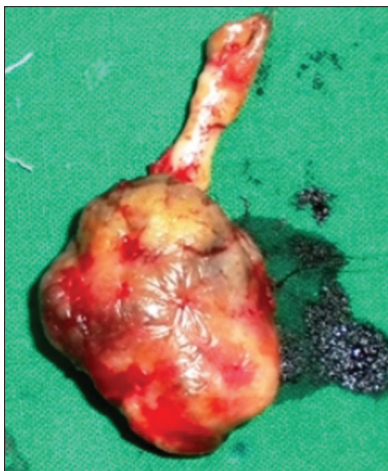
Clinically, these tumors present as slow-growing, firm masses not attached to the underlying bone and are, occasionally, painful. Radiologically, soft tissue chondroma show well-demarcated, extraskelatal, soft tissue masses. Radiographic evidence of calcification has



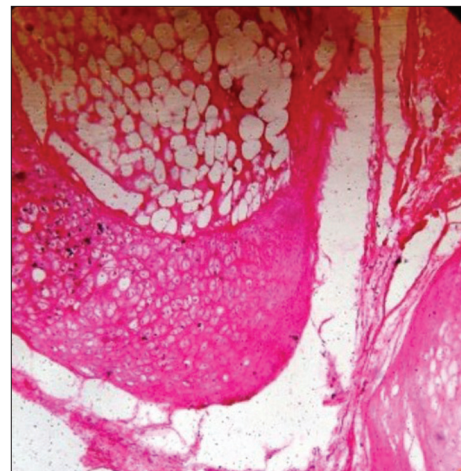
**Figure 1:** Pre-operative photograph showing palatal swelling completely obliterating the cleft with linear band extending to the lip



**Figure 2:** Plain computed tomography coronal section of the swelling



**Figure 3:** Resected specimen



**Figure 4:** Histopathological appearance of the chondroma



**Figure 5:** Two-year follow-up photograph showing repaired palate having adequate length with no recurrence

been reported in 30-70% of the cases.<sup>[7,8]</sup>

Surgical excision is the treatment of choice. No recurrence has been reported in previous cases.<sup>[3-6]</sup>

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