Chondroid Choristoma: Report of a Rare Case

Rooposhi Saha * / Shobha Tandon ** / Pramod Kumar ***

An 11-year-old girl reported with an intraoral swelling which was noticed by her mother at birth and increased to its present size during the last year. A thorough clinical examination did not shed a conclusive diagnosis. This case highlights and discusses the history, clinical features, histologic features, differential diagnosis and the clinical management of this lesion. Awareness of such an entity will enrich the knowledge of the pediatric dentists who may be the first ones to encounter such cases in their day-to-day practice.
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INTRODUCTION

"Symptoms are body's mother tongue and signs are in a foreign language". Sometimes both the signs and symptoms may not lead us anywhere. Similar kind of a diagnostic dilemma was confronted in our department. A suspicious looking oral lesion in a young girl finally diagnosed to be one of the rarest intraoral entities.

Case report

An 11 year old girl, accompanied by her parents, presented with a swelling in right upper labial vestibule. Her family and medical history were not relevant. Parents reported that they noticed a small swelling in the area at birth. It increased gradually to its present size during the past one year, till then it remained asymptomatic. There was no history of trauma or any previous lesion in the oral cavity. An intraoral examination revealed a submucosal lesion measuring 2 cm by 2 cm, extending from the vermillion border of the lip to the alveolar mucosa in the right maxillary labial vestibule. It was in relation to the right maxillary permanent central and lateral incisor and the deciduous canine of the same side. There was no change in color of the surrounding mucosa (Figure 1). The presence of two pits was also noted on the lesion. On palpation the lesion was soft in consistency but a hard mass was palpable distal to the permanent lateral incisor, in the canine region. The lesion was freely mobile, non tender on palpation with no local rise in temperature.

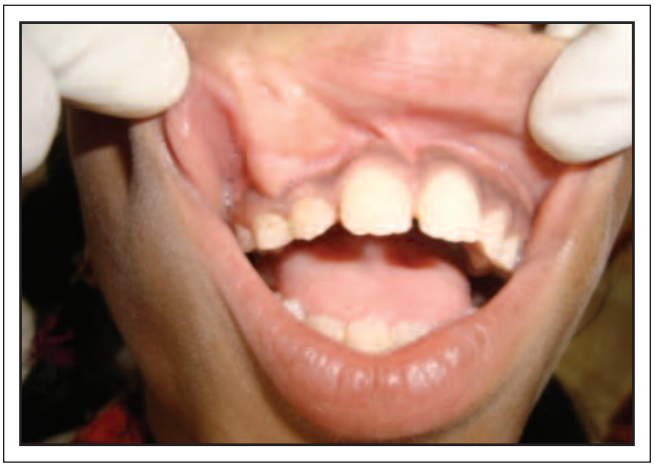

Figure 1. Submucosal lesion of the right maxillary labial vestibule

The pits were found to be blind with a depth of 0.5 mm (Figure 2). There was no discharge from the pits. The teeth in the region of the lesion were non tender on vertical and horizontal percussion. Different radiographs such as orthopantomogram, PNS view, maxillary occlusal view and anterior and posterior IOPAs did not reveal any significant

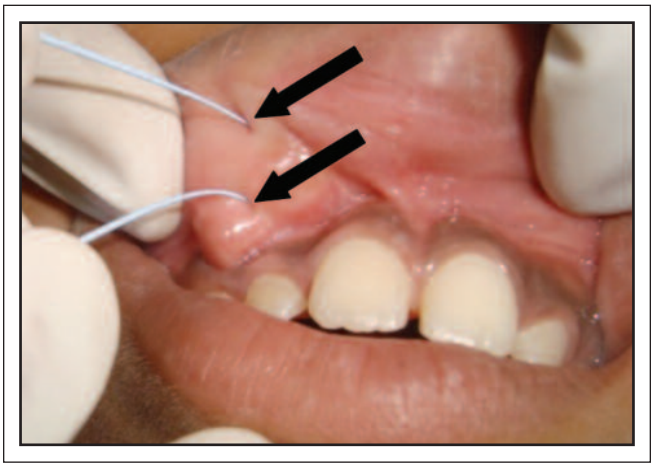

Figure 2. Submucosal lesion, with arrows showing the presence of two blind pits

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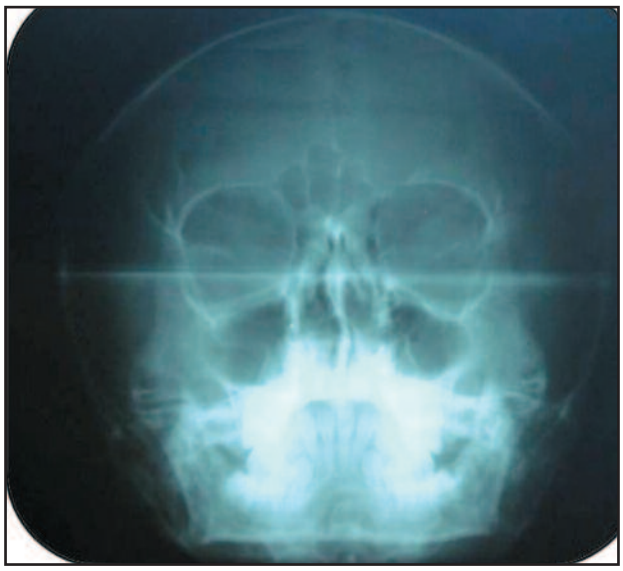

Figure 3. PNS view showing symmetry on both sides

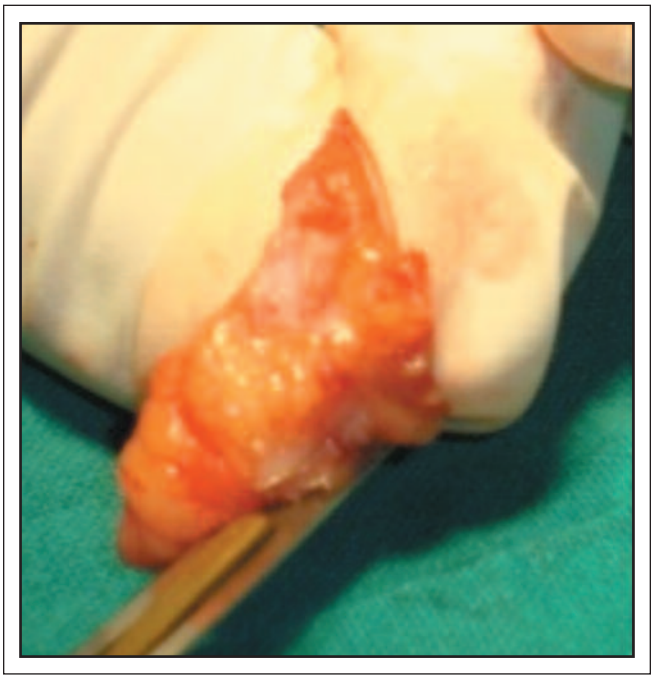

Figure 4. Gross specimen of the excised tissue

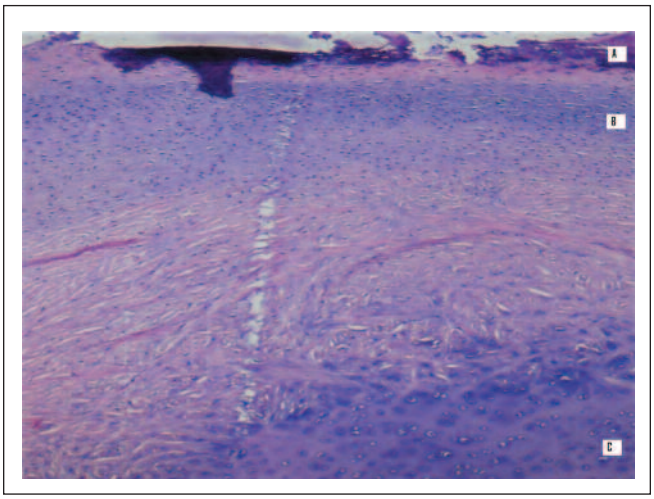

Figure 5. Histopathological picture showing A, Bony trabeculae; B, Fibrocollagenous tissue; C, Cartilagenous nodule

radiographic abnormalities (Figure 3). Based on the history, clinical examination and investigations the differential diagnosis included fibroma, congenital lip pits, congenital epulis, dermoid cyst and lipoma. A fine needle aspiration cytology was also performed which did not show any aspirate. Due to the inconclusive nature of the final diagnosis a complete surgical excision was planned followed by histologic examination. During the surgery under general anesthesia, a soft tissue mass was noted after giving vertical and horizontal releasing incisions. A fibrocartilaginous attachment to the maxillary bone was found at a single point. Leaving the marginal gingiva intact, the soft tissue growth was completely excised and non-resorbable sutures were placed. The specimen (Figure 4) was sent for a histopathological examination. Histologic evaluation showed squamous epithelium overlying fibrocollagenous and adipose tissue with seromucinous glands. A circumscribed cartilaginous nodule surrounded by fibrocollagenous tissue and focal lymphocytic infiltrate and proliferating capillaries was seen with adjoined bony trabeculae (Figure 5). These features were suggestive of chondroid choristoma. During the course of follow up visits the lesion healed uneventfully. Figure 6 shows the preoperative and 15 days postoperative view after surgical excision.

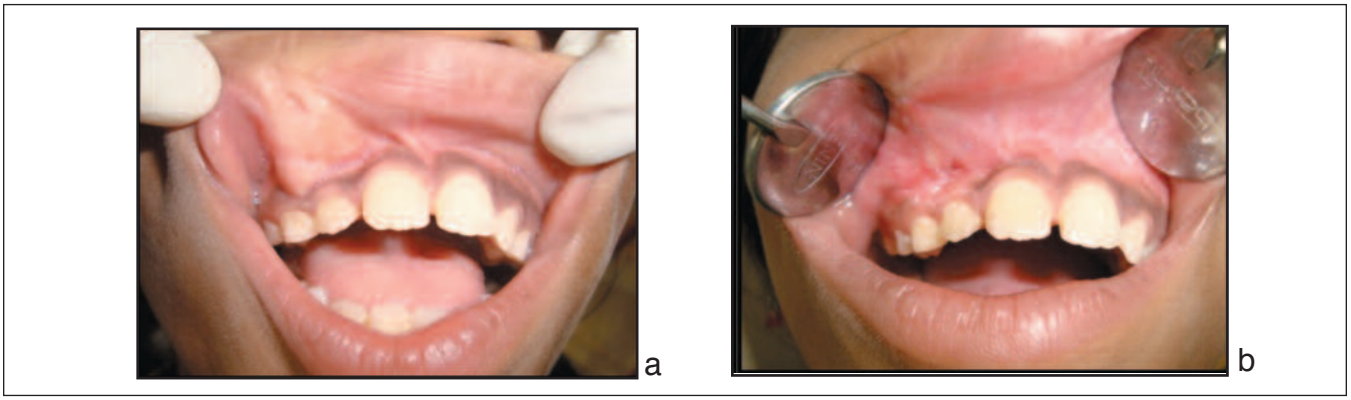

Figure 6. (a) Preoperative (b) Postoperative (Follow up)

DISCUSSION

A choristoma is defined as a tumor like mass of normal cells that has developed in an abnormal location.[1] Intraoral cartilage choristoma is a rare lesion. These lesions have been shown to have a predilection for tongue, accounting for 85% of all cases. Most of the cases published have been reported in the tongue.[2] A wide age range of 8-73 yrs. has been reported for intraoral choristomas; most of the patients being females between 20-40yrs.[3] Clinically it presents as asymptomatic firm nodule 0.5 to 2 cm in size; symptoms of dysphagia, pain or discomfort may be present depending on the location. Plausible theories to explain the etiology and pathogenesis of cartilaginous choristomas include 1) metaplastic formation, 2) cartilaginous embryonic rests, 3) pluripipotent cell derivation, According to the metaplastic theory, a history of trauma or chronic irritation may lead to metaplastic changes in that region which can cause abnormal proliferation of the tissues; but if this was the main reason for formation of chondroid choristoma then there should be a presence of cartilage within the scar tissue instead of a cartilaginous nodule.[1] The upper lip is formed by two median swellings and two nasal swellings during seventh week of intrauterine life. Embryologically, cartilaginous remnants during the process of embryogenesis may later give rise to cartilage choristoma. Pluripotent cells after stimulation may lead to formation of chondrocytes, but the stimulus resulting in such growth is still unknown.[4] The intraoral cartilaginous choristoma being a rare entity may resemble many other soft tissue tumors. The list of differential diagnoses may include mesenchymal tumors like the chondroma, soft tissue osteoma fibroma and developmental lesions like dermoid cysts and congenital epulis.

Chondroma is a benign central tumor composed of mature cartilage but is uncommon in maxilla and mandible. The lesion may develop at any age and has no gender predilection. Usually arises as a painless, slowly progressive lesion of the jaw, mostly in the anterior maxillary region.

Soft tissue osteoma of oral cavity is a slow growing and relatively uncommon lesion but can occur at any age. It presents as a painless firm nodule ranging up to 2cm in diameter.

Fibroma is the most frequent benign tumor of the oral cavity consisting mainly of the fibroblasts and collagen fibers but in majority of cases corresponds to hyperplasia due to chronic irritation.[5] In our case there was no history of any traumatic episode or chronic irritation due to dentures or other appliances.

Dermoid cysts are usually present at the embryological junctions. They present slow and progressive growth and are often diagnosed in the second and third decades of life. It is filled with greasy cheese like content formed by keratin and sebaceous material. In the present case however, the growth was observed by the mother immediately after birth, there was no progressive increase in size and also there was no aspirate on fine needle aspiration test, so possibility of a dermoid cyst was ruled out.[8]

Congenital epulis presents as a swelling located in the incisor region of maxillary arch. It varies considerably in size from few millimeters to few centimeters in diameter. It also has a predilection for female sex.[6] A few cases of spontaneous regression have been reported which has mostly occurred with lesions that were very small in size.[7]

CONCLUSION

This seems to be a rare chondroid choristoma with an unusual location and presentation. Pediatric dentists may be the first ones to encounter such suspicious looking lesions who can help to prevent prognostic complications.

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