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Complete spontaneous regression of congenital epulis in a baby by 8 months of age

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Background. This paper describes the case of a 7-day-old girl who was referred to a paediatric dentistry clinic because of the presence of a pedunculated mass protruding from the front of her mouth.

Case report. The mass was attached to the maxillary alveolus to the right of the midline, and was clinically diagnosed as a congenital epulis. The baby had no airway obstruction and was able to feed well. A conservative treatment was proposed, with monthly follow-up appointments to monitor the lesion.

Conclusion. After 8 months, the lesion had completely regressed, meaning that the girl did not have to be exposed to unnecessary surgical procedures in her first few days of life. The eruption of the upper anterior teeth was not affected.

Introduction

Congenital epulis (congenital granular cell tumour) of the newborn is a rare benign soft-tissue tumour. It is between eight and 10 times more common in females than in males[1–10]. The condition presents as a pedunculated mass on the alveolar mucosa, and can be found as a solitary nodule or multiple nodules[1,7,9,11]. It is usually located in the maxillary alveolar ridge, in the incisor or canine region[3,5,7,12], varying in size from several millimetres to 9.0 cm[4]. Depending on the size, the tumour may obstruct the foetal mouth and cause polyhydramnios, obstruct deglutition of amniotic fluid[2], and postnatally, can interfere with both the breathing and feeding of the child[2,3,5,7,8,10,13].

The aetiology is not clear. Several theories have been suggested, namely myoblastic, odontogenic, neurogenic, fibroblastic, histiocytic and endocrinologic causes[2,4,11]. Provisional diagnosis is often made clinically at birth and subsequently confirmed histologically. Occasionally, epulis may be detected on prenatal ultrasonography[1,2,5,7,13].

The treatment option for large epulis is usually simple surgical excision under local or general anaesthesia. Wide surgical excision is not required. Small lesions can be left to undergo involution and may disappear over time[1,2,5–7,9,10,13,14].

Case report

A 7-day-old girl was referred to the Clinic of Paediatric Dentistry at Bauru School of Dentistry, University of São Paulo, Bauru, São Paulo, Brazil, because of the presence of an intraoral swelling. The infant was born in week 39 of gestation. Pregnancy and parturition were normal. The baby weighed 3.3 kg at birth and was healthy, with no other discernible anomalies.

Clinical examination confirmed a firm pedunculated nodule ($1.4 \times 1.2 \times 1.2$ cm) protruding from the front of the mouth (Fig. 1). The mass was attached to the maxillary alveolus to the right of the midline, and the mucosa covering the area was macroscopically normal (Fig. 2). The baby had no airway obstruction symptoms and was able to feed well.

The alveolar mucosa mass was clinically diagnosed as a congenital epulis, which should

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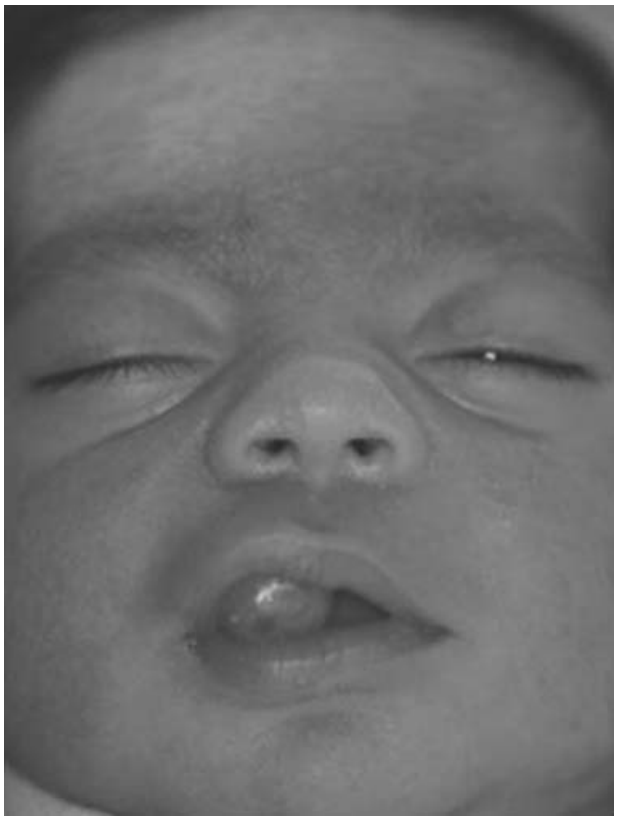

Fig. 1. Pedunculated alveolar mucosa mass preventing normal closure of the mouth in a 7-day-old girl.

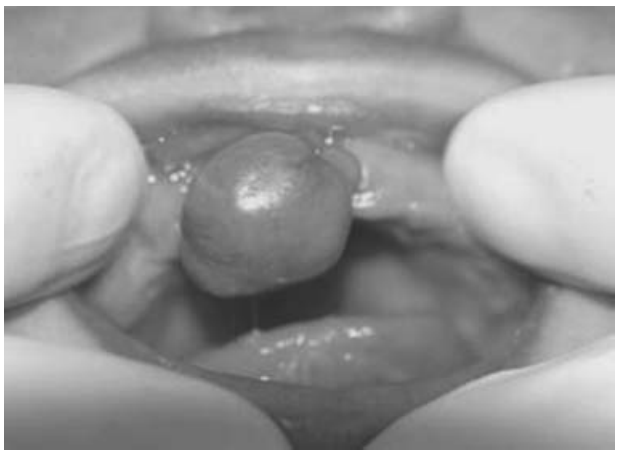

Fig. 2. Classic presentation of a congenital epulis: a pedunculated and smooth mucosal-covered lesion of the maxillary gingiva.

be confirmed by means of histological analysis. Because the tumour was relatively small, and considering the age and size of the child and her ability to breathe and feed normally, the treatment planning proposed for this case was to delay the surgery until the child was a little older. Meanwhile, monthly follow-up appointments would be scheduled to monitor the lesion. The mother was informed that the mass could either regress spontaneously or be removed by means of surgical excision during the first year of life.

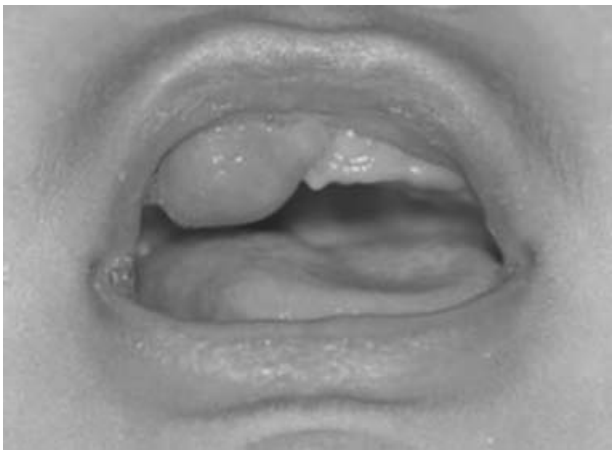

Fig. 3. Significant regression of the pedunculated alveolar mucosa mass at 2 months after birth.

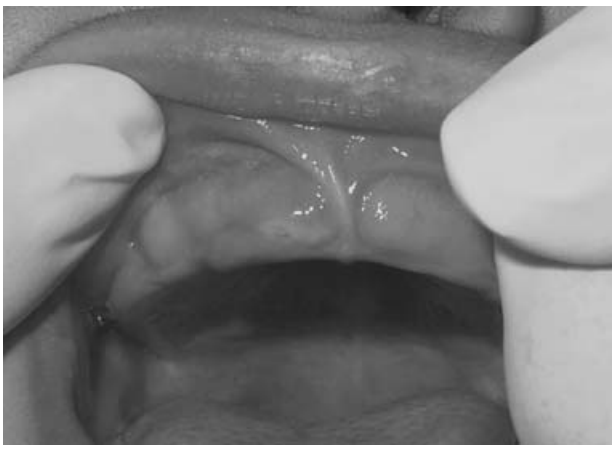

Fig. 4. Complete spontaneous regression of the pedunculated alveolar mucosa mass at 8 months after birth. The incisal edges of both upper incisors can be seen through the alveolar mucosa.

From the second follow-up appointment, the mucosa mass regressed considerably (Fig. 3). Therefore, the surgical removal was delayed. After 8 months, the lesion completely regressed and the incisal edges of both upper incisors could be seen through the alveolar mucosa (Fig. 4). Further follow-up appointments were scheduled monthly in order to monitor the eruption of the primary dentition (Figs 5 & 6).

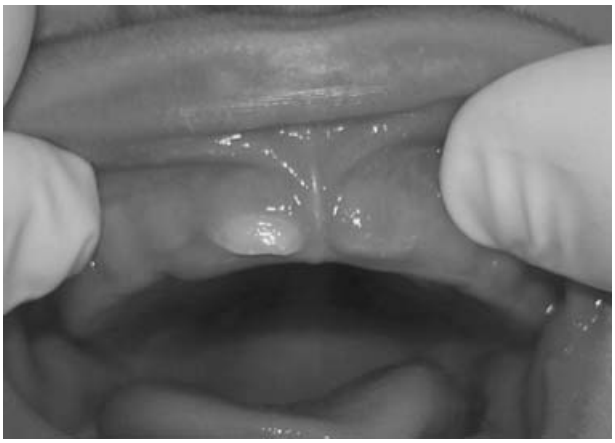

Fig. 5. Eruption of the upper anterior teeth at 10 months after birth.

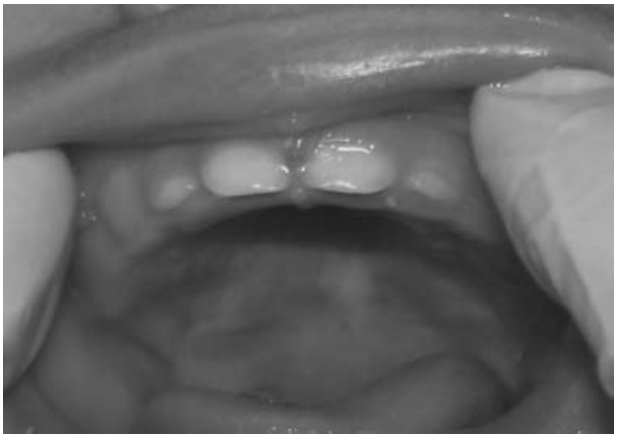

Fig. 6. Normal eruption of the lateral and central incisors in the former area of the pedunculated alveolar mucosa mass one year after birth.

Discussion

This is a well-documented clinical report of complete spontaneous regression of an alveolar mucosa mass suspected to be a congenital epulis of the newborn. The case described here presents a classical feature of this lesion, i.e. a pedunculated mass found in the anterior maxilla region of a female newborn[1,3–5,7]. However, the final diagnosis could not be confirmed histologically because a biopsy was not performed.

No standard protocol exists for the management of this tumour. Some authorities advocate observation only, except in symptomatic cases. Most often, the lesion is surgically removed to confirm its nature[9]. As previously explained, when it is large, and interferes with feeding and breathing, surgical excision is necessary[1,5,7,13]. In this case, however, the patient had no airway obstruction, was able to feed well and was too young to be exposed to a surgical procedure that could be delayed. Additionally, the history and clinical features of the lesion suggested its benign nature.

After 8 months, the alveolar mucosa mass underwent spontaneous resolution, corroborating the speculations of other authors[1,2,4,5,7,9,10,13]. Besides, as observed in the monthly follow-up appointments, the eruption of the upper anterior teeth was not compromised, suggesting that possible residual remnants of the lesion do not interfere with subsequent tooth eruption.

Aesthetically, congenital epulis can appear alarming, especially to the child's parents, because of the large size and aggressive appearance. Important components in the differential diagnosis of pedunculated anterior oral masses in the neonate include haemangioma, lymphangioma, fibroma, granuloma, rhabdomyosarcoma, and osteogenic and chondrogenic sarcomas[3,5,7,8,12]. Treatment modalities for these lesions are very different, and early diagnosis and treatment are essential[7].

Currently, the main areas of controversy surrounding the congenital epulis are related to the exact aetiology, growth and progression of the lesion in the foetus[7]. This case illustrates well that knowledge of the epulis is important, since often only conservative treatment is required[6,14]. If the lesion is small, it might be allowed to regress spontaneously. This conservative approach can avoid babies being exposed to unnecessary surgical procedures in their first few days of life. Moreover, taking into account that some parents become distraught at the thought that the lesion may be a malignancy and can only be reassured once a biopsy is carried out, this paper may help future clinicians to be more positive in their reassurance to parents.

What this paper adds

- Depending on its size, congenital epulis may undergo spontaneous involution and disappear over time.
- This avoids unnecessary surgical procedures in the first days of life of the newborn.

Why this paper is important to paediatric dentists

- This paper may help clinicians to be more positive in their reassurance to parents regarding the prognosis of congenital epulis.

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