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Case Report

Congenital epulis in new born: A case report

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Abstract

Congenital epulis also known as Neumann's tumor, is a rare lesion of newborn. It is usually benign in nature. A newborn baby girl weighing 2100 gram was found to have a solid mass arising from the anterior ridge of the maxilla. This caused difficulty in feeding. The mass was excised under general anaesthesia and histopathology was suggestive of granular cell tumor.

Keywords: Congenital epulis, Granular cell tumor, Gingival granular cell tumour.

1. Introduction

Congenital epulis is also known as congenital granular cell tumor (CGCT) of the newborn, or as Neumann's tumor that described the entity first time in 1871.[1] Most of the congenital granular cell tumors (CGCT) appear as a solitary lesion occurring predominantly on maxillary alveolar ridge. The maxillary to mandibular ratio being 3:1, canine incisor region is the most frequently affected site. It occurs more frequently in females than in males with a ratio being 8:1.[2]

Multiple CGCTs as well as reports of simultaneous involvement of mandible and maxilla have been reported in the literature.[3]

2. Case Report

A day 2 new-born girl was referred to our department with the complaints of mass protruding from the mouth. The infant was full term, normal delivery. Birth weight was 2.2 kg. Antenatal ultrasound done 24 weeks of gestational age was normal.

On examination, firm pedunculated mass of size 3 x 3 cms was seen protruding from the mouth was attached to maxilla in the midline by a stalk [Figure 1 & 2]. Capillary leashes could be seen on the swelling. Baby was sucking the swelling as a pacifier. It was hindering breastfeeding however; there was no respiratory distress or airway obstruction. The neonate was operated under the general anaesthesia with nasal intubation. Excision of the swelling was done. Bleeding was insignificant. Postoperative recovery was smooth. Oral feeding was started on next day. Child was discharged on second postoperative day. [Figure 3]

Histopathology of the tumour confirmed the diagnosis of a congenital GCT. Macroscopically, the external surface was slightly irregular and the cut surface was homogenous and tan. Histologically, it was composed of diffuse sheets and clusters of polygonal cells containing small round to oval nuclei and abundant coarsely granular cytoplasm. There was a delicate plexiform network of capillaries.

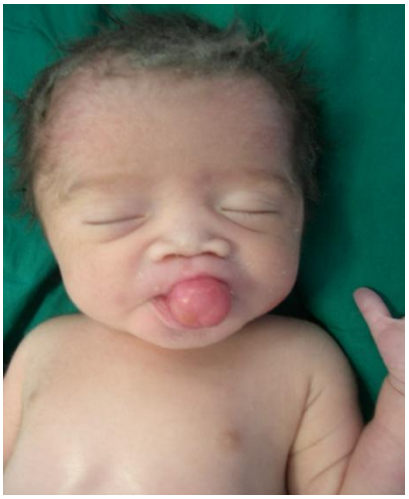

Figure 1: AP view showing pedunculated mass.

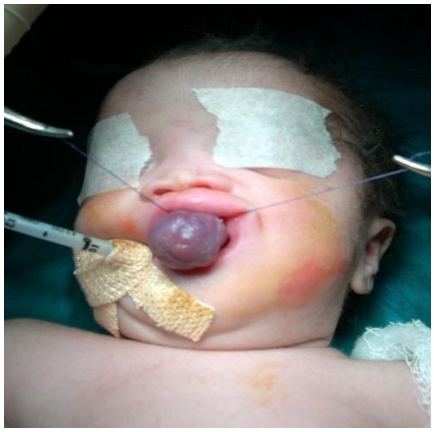

Figure 2: Showing ligated vessel of epulis

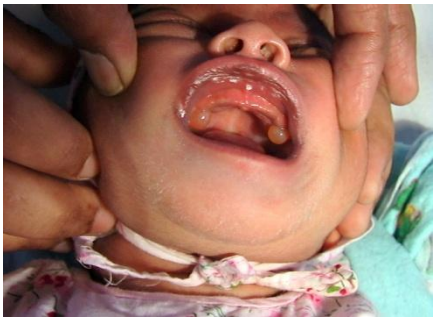

Figure 3: postoperative picture after excision

2. Discussion

Congenital epulis is also known as congenital granular cell tumor (CGCT) of the newborn, or as Neumann's tumor that described the entity first time in 1871.[1] Most of the congenital granular cell tumors (CGCT) appear as a solitary lesion occurring predominantly on maxillary alveolar ridge. The maxillary to mandibular ratio being 3:1, canine incisor region is the most frequently affected site. It occurs more frequently in females than in males with a ratio being 8:1.[2] Multiple CGCTs as well as reports of simultaneous involvement of mandible and maxilla have been reported in the literature.[3]

Granular cell tumour can be found at other sites as well. On light microscopy both the lesion shows similarity. However, there are few striking differences in between CGCT and other granular cell tumors (GCT). They are [4]

(a) Female sex preponderance
(b) Anterior maxillary location
(c) Presence at birth
(d) Plexiform arrangement of capillaries, absence of pseudoepitheliomatous hyperplasia
(e) Absence of S100 proteins.

Whereas GCTs originate from Schwann cell and are strongly positive for S100 protein, histiogenesis of CGCT remains unclear. Multiple theories have been put forward like myoblastic, neurogenic, odontogenic, fibroblastic, histiocytic. However controversy remains unresolved. Most popular ones favour the mesenchymal and odontoblastic theories.[4]

In view of female preponderance, influence of oestrogen and progesterone was suspected. However the studies failed to show the presence of receptors for both the hormones.[4]

The recommended treatment is prompt surgical resection. Recurrences of the tumor and damage to future dentition have not been reported, suggesting that radical excision is not warranted. However, cases of spontaneous regression have also been described.[5] The differential diagnosis that should be thought of is haemangioma, lymphangioma, and fibroma, rhabdomyoma, and heterotrophic gastrointestinal cysts. In our case antenatal ultrasound at 24th week failed to detect the lesion however there are reports of prenatal diagnosis, detected late in gestation.[6]

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