

Short Clinical Report

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Multiple lesions of congenital epulis

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CASE PRESENTATION

A one-day-old female neonate presented with a huge mass protruding from the mouth. The baby was not given breastfeed. She was a second-born, full-term, LSCS delivery with a birth weight of 2.5 kilograms. Antenatal USG mentioned a mass in the neck suggestive of teratoma. She had cried immediately after birth and no resuscitation was required. APGAR score was 7 at 5 minutes. On examination, the child had a good tone and activity. It was arising from the gum-line (Fig.1).



Figure 1: Multiple congenital epulis lesions.

There were no other obvious congenital anomalies. Her hematological investigations showed hemoglobin of 13gm%, WBC count was 18000/cumm. The mass had turned reddish-black the next day (Fig.2). Cranial and renal ultrasonography was normal. The baby was posted for surgery after explaining all risks and consequences to the parents. Consent for tracheostomy was also taken if need be. The baby was intubated with no. 3 endotracheal tube with a large wet throat pack inserted to avoid any fluid/blood dripping in. Evaluation under anesthesia

revealed the palate to be normal. There were a total of 3 masses that were arising from the oral cavity. The largest lesion (4x3x3cm) was arising from the mandibular arch near the right angle of the mouth. The second lesion (3x2x1.5 cm) was arising from the left side of the maxillary arch. The third one (2x1.5x1.5cm) was arising from the mandibular arch in the midline. All three masses were pedunculated. The base of the largest mass was transfixed, mass excised and hemostasis was achieved using bipolar electrocautery. The other two masses were excised directly with bipolar electrocautery. She was extubated and had an uneventful postoperative course. Breastfeeds were started from postoperative day 1 and were well-tolerated. Histopathology report of all three masses showed well-circumscribed tumors lined by stratified squamous epithelium with tumor cells arranged in sheets. Individual tumor cells were large, having round to oval vesicular nuclei with abundant coarse granular, eosinophilic cytoplasm suggestive of congenital epulis (Fig.3).



Figure 2: Multiple congenital epulis lesions which have turned reddish-black on day 2 of life.

Presently, at follow-up of 1 year, she is totally asymptomatic, thriving well, and has attained age-appropriate milestones. Teething and vocalization is normal and age-appropriate without any deformity.

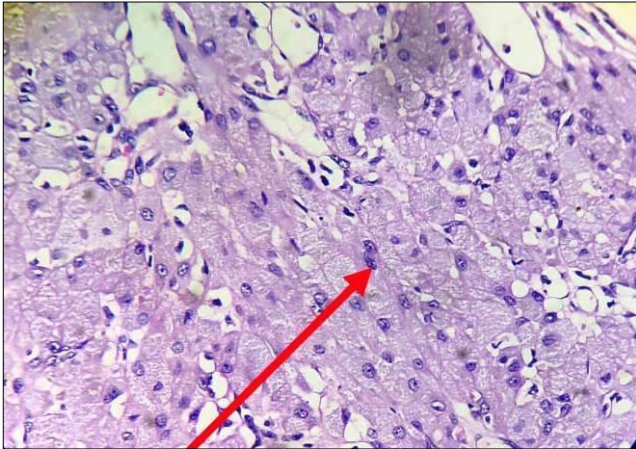


Figure 3: Histopathology slide showing abundant coarse granular, eosinophilic cytoplasm with vesicular nuclei [40X magnification, H & E staining]

DISCUSSION

Congenital granular cell tumor (CGCT), also known as Congenital epulis, is a rare benign tumor that originates from the mucosa of alveolar ridges of the maxilla.[1] Typically, it presents as a mass protruding from the newborn's mouth. It usually arises from the anterior part of the maxillary alveolar ridge, but can also occur from the mandibular ridge or tongue.[2] Its pathogenesis is not clear. However, it is always benign and never grows postpartum. Literature suggests that it may have multiple origins i.e undifferentiated mesenchymal cells, fibroblasts, histiocytes, mesodermal cells etc.[3-5] The majority of the times it presents as a solitary, pedunculated, smooth surface mass with sizes varying from a few mm to 9cm. Mostly it presents as a single lesion; but in 10% of cases, it may arise from multiple locations

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simultaneously.[2] It is more common in females suggesting a hormonal connection. Congenital epulis is commonly diagnosed after birth. Antenatal diagnosis is only possible by 3D-USG or Fetal MRI provided the mass is large.[5] The differential diagnoses for congenital epulis are granular cell tumor, hemangioma, fibroma, rhabdomyoma, rhabdomyosarcoma, dermoid cyst, and teratoma. Histologically, congenital epulis almost resembles granular cell tumor; but can be differentiated by the fact that epulis occurs more commonly in newborns, whereas granular cell tumor is more common in adults. Congenital epulis has no malignant potential and does not affect the dentition.[2]

Most of the cases mentioned in the literature had presentations similar to our case. Few cases especially with multiple masses have presented with feeding and respiratory difficulties. Gupta et al have presented a similar case with a mass of 4x4cm size and feeding difficulties, where total excision was done.[5] Kokubun et al also had a similar case, but excision was done at 5 months of age.[1] Treatment of choice is surgical excision and should be ideally done at the base of the mass.[5] Local recurrences have never occurred after surgical excision.[5] Carbon dioxide laser excision is also in vogue.[2].

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