

## A Case Report

# CONGENITAL EPULIS: A CASE REPORT

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*Received: November 01, 2011*

*Accepted: November 28, 2011*

## الورم اللثوي الخلقي: تقرير حالة

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### الملخص العربي

يعد الورم اللثوي الخلقي او ورم نيومان او ال ورم الحبيبي الخلق في حديثي ال ولادة من الاورام النادرة التي تنشأ من خلايا حرف اللثة وهو ورم حميد يحدث في حديثي الولادة بنسبة 1:9 (الاناث:الذكور) يجز هنا حالة مسجلة ل ورم لثوي خلقي بالجانب الايسر لحرف الفك العلوي لطفلة سعودية تبلغ من العمر ثلاث ايام لاحظت والدتها صعوبة الرضاعة والتغذية الفمية دون انسداد في التنفس تم استئصاله جراحيًا بلجراحة لطبيعية ال ورم بالنتشخيص النسبجي كما اقمنابع رض الادب الطبي لهذه الاورام عند حديثي الولادة مع عرض وسائل التشخيص ونسبة حدوثه مع الاهتمام بالتشخيص التفريقي

## ABSTRACT

Congenital epulis, Neumann's tumor or congenital granular cell tumor (CGCT), of the newborn is a rare gingival tumor that occurs along the alveolar ridge. This benign condition, seen more frequently in females, with multiple Epuli occurring in only 10% of cases. In this article we present a case report of an otherwise healthy Saudi female neonate with congenital epulis noticed at birth on the left anterior maxillary ridge intervening with feeding and was not cause any respiratory obstruction. We also present a review of the literature and an estimation of the incidence of Congenital Epulis of 0.006% is reported.

## INTRODUCTION

Medicine The term congenital epulis of the newborn refers to a rare gingival tumor that most commonly occurs along the alveolar ridge of the maxilla in newborn. Congenital epulis is a rare lesion found on the alveolar process of a newborn child, diagnosed soon after birth. Usually without associated abnormalities of the teeth or additional congenital malformations. The characteristic features of congenital epulis are a pedunculated, flesh-pink coloured tumour with a predominant occurrence on the anterior maxillary alveolar ridge in a female newborn<sup>8</sup> depend on their size they interfere with normal feeding and potentially compromise airway and respiration. The lesion has a site predilection for the anterior maxillary alveolar process and a 9:1 sex predilection for females. Once diagnosed the traditional management of the lesion has been surgical excision under general anesthesia.

Neumann is credited in documenting the first case congenital epulis. In 1871 he described a red smooth-surfaced bilobed tumor resembling a polyp that was attached by a stem to the gums on the left jaw's upper edge of a normally built/shaped newborn. He portrayed the tumor as being composed of large coarse-grained cells with numerous blood vessels that was separated from the overlying oral mucosa by a loosely defined boundary<sup>1</sup>. Since then, multiple cases have been reported, primarily in the pathologic, dental, and otolaryngologic literature 2–4. Two recent articles in the otolaryngologic literature report the in utero sonographic findings of larger lesions. In one case, the patient had hydramnios; in the other case, the authors also describe the postnatal computed tomographic (CT) findings.<sup>3,4</sup> It is normally diagnosed at birth, but there are some cases in which diagnosis can be made on the third trimester pre-natal.<sup>5</sup> The recommended treatment for congenital epulis is prompt surgical excision due to interferences with feeding, respiration or adequate closure of the mouth.<sup>6</sup> Although some cases of congenital epulis have been reported in the literature 6., it is important to allow pediatric dentists to be aware of this congenital tumor and its presentation, differential diagnosis, treatment and histopathology.<sup>7</sup>

## CASE

A full term newborn Saudi girl, product of uneventful pregnancy to 34 years old mother with history of smoking during the pregnancy (1 pack/day). This newborn noticed at birth to have a soft tissue mass protruding from her mouth. The mass did not seen on antenatal ultrasound which was done on the 32 weeks. At birth the baby weight was 2900g. On examination

pediculated firm mass measure 1 x 1.5 cm., fix to the anterior alveolar ridges toward the left side with no ulceration or bleeding ,no other oral or congenital abnormality was found, and the adjacent tissues were normal in appearance Fig 1. The mother reported that the baby have feeding problems with no airway obstruction or respiratory distress. Differential diagnosis of teratoma, neuroectodermal tumour, haemangioma and fibroma with a provisional diagnosis of congenital granular cell tumour ( CGCT). Nasogastric feeding was instituted and 3 days after birth, the infant was operated on under general anesthesia with oral intubation and cautary was use. Blood loss was insignificant. The area of the resection was left open for closure by secondary intention Fig 2. Uneventful post operative course,patient start oral feed in first post operative day and discharged on the second post operative day, the gingiva re-epithelized completely within 2 days Fig 3. Histopathology examination of the tumor confirmed the diagnosis of a congenital GCT,



**Figure 1. PRE-OPERATIVE**

Smooth, pink-colored soft tissue mass on the alveolar ridge to the left of the alveolar ridge, with no other anomalies could be observed.



**Figure 2. POST - OPERATIVE**  
Immediate post operative appearance, showing good haemostasis and cosmesis.



**Figure 3.** Post-operative clinical image 8 months after surgery. vivid looking .

## DISCUSSION

Congenital epulis has been reported with an 9:1 female and 3:1 maxillary alveolar site predilection, with a Caucasian predisposition.<sup>8</sup> Zucker and Buenecha found only 167 cases reported before 1993-9. Some antenatal events have been described associated with CE. Pellicano et al.<sup>10</sup> have reported that the tumor may obstruct the fetal mouth and cause polyhydramnios, a medical condition describing an excess of amniotic fluid in the amniotic sac. Post-natally, feeding and respiration problems and also interference with mouth closure have been reported.<sup>11</sup> In the present case, the lesion was not interfering with feeding and breathing, which could be attributed to lesion size, as already described by Kannan and Rajesh.<sup>12</sup> It is important to stress that clinicians should know differential diagnoses of growths in the oral cavities of newborns, including hemangioma, lymphangioma, fibroma, granuloma, rhabdomyosarcoma and osteogenic and chondrogenic sarcomas, as treatment modalities will be different for each case.<sup>2,13</sup> In the present case, the clinical diagnosis of congenital epulis was further confirmed by the histopathology of the fibrotic mass removed from the patient . which showed a stratified squamous mucosa and a prominent branching fibrovascular network. In our case, the lesion was interfering with feeding and was not interfering with breathing, which could be attributed to lesion size, as already described by Kannan and Rajesh.<sup>12</sup> Our case, is not associated with any other congenital abnormalities. Perhaps our case has an atypical presentation of a CE, which is a female Caucasian neonate diagnosed with a pedunculated mass in the maxillary alveolar ridge. In our case the tumor was not diagnosed by ultrasound on the 25th week of gestation, suggesting that it may have developed later. There have been reports of prenatal diagnosis and in those cases, in which the tumor was detected late in gestation.<sup>14</sup> The treatment adopted in this case was the surgical excision under general anesthesia, using cautery as cutter and haemostatic measures. It is important to stress that clinicians should know differential diagnoses of growths in the oral cavities of newborns, including teratoma, hemangioma, lymphangioma, fibroma, granuloma, rhabdomyosarcoma and osteogenic and chondrogenic sarcomas, as treatment modalities will be different for each case, and team work is mandatory. The presentation of congenital epulis can be impressive due to size and appearance, although in our case the lesion was relatively small, a considerable apprehension by the mother observed. Therefore, surgical intervention should be performed as soon as possible to benefit both infant and family well-being.

## CONCLUSION

CGCT is relatively common in Caucasians newborns but appears to be much less common in colored or black newborns, and the occurrence of more than one lesion is rare. The tumor is often misdiagnosed and cause anxiety to the family and pediatrician. The family of an infant with CGCT should be assured of the benign nature and the simple early excision is the treatment of choice for this condition with good cosmetic result. Recurrences of the tumor and damage to future dentition have not been reported, suggesting that radical excision is not warranted. Simple excision of the tumor is the treatment of choice with good cosmetic result.

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