Congenital epulis of the newborn: a report of two cases

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Congenital epulis of the newborn is a rare lesion whose histogenesis and natural clinical history have remained obscure. Even with the advent of modern histopathological techniques, it has not been possible to depict specific cellular features unique to this lesion. However, it is important that new cases are reported from all populations so that their occurrence and frequency may be easily noted. Furthermore, the lesion is important as a differential diagnosis of other aggressive lesions early in life. This report presents two Kenyan cases.

The congenital epulis (myoblastoma) of the newborn is a benign neoplasm of the oral mucosa to which a host of various titles have been affixed.1 A number of workers have suggested that these congenital epulides are malformations of the dental blastema and should be regarded as a type of embryonal hamartoma and not a true neoplasm.2 The lesion is benign in nature yet can cause feeding and respiratory problems.3 It is apparent from the literature that no other developmental anomalies may be associated with this lesion.

This article presents two cases of congenital epulides: one with a mandibular and double maxillary growths occurring with upper limb polydactylyism; and the other with a massive right maxillary lesion.

Case reports

Case 1

A 2-week-old healthy girl was referred to the oral surgery clinic for the evaluation and management of masses on the upper and lower jaw gum pads. These swellings hampered normal breast-feeding. Delivery had otherwise been normal at full-term; and the maternal and paternal histories were unrevealing.

Intra-oral inspection showed a firm growth about 2 × 1 × 1 mm arising from the right anterior maxillary gum pad and a pedunculated mass about 3 × 2 × 2 cm located in the incisor-canine areas of the right mandibular gum pads (fig. 1). Both swellings were covered by normal mucosa. General examination revealed polydactylyism of the upper limbs. Under a local anaesthetic the lesions were completely excised and healing was uncomplicated.

Case 2

A 5-day-old female infant was referred to the oral surgery clinic for the evaluation and management of a growth in her upper right jaw. The swelling had been noticed at birth and had started interfering with feeding. The child was otherwise a normal full-term delivery.

Intra-oral examination revealed a massive, 3 × 1 × 0.5 cm, pedunculated growth in the right maxillary canine-molar area. The lesion was soft in consistency and was covered with normal oral mucosa. The infant was in good general condition with no other discernible anomalies.

Under a local anaesthetic the growth was completely excised and the wound closed with two firm sutures. Post-operative healing was uneventful. The specimen submitted for histopathological examination depicted features akin to those in Case 1 (figs 2 and 3).

Histopathology

Microscopic examination of the specimens from the two cases revealed well vascularised pedun-
experience that the rim of enamel remaining at the gum margin (as shown in fig. 1) is typical of the reduced damage which occurs near the gingival crevice in these cases. This may be due, in part, to the flow of gingival crevicular fluid which has an approximately neutral pH.\textsuperscript{14} Continued monitoring of the situation is, of course, essential — in this case no further evidence of erosion is apparent over a period of 9 months.

References

British Society for Dental Research
Annual Meeting

The annual meeting of the British Society for Dental Research took place in Sheffield on April 12–15 this year. Over 700 delegates attended from all parts of the United Kingdom. During each morning there were six simultaneous sessions at which a total of 278 verbal communications were presented. Three poster sessions were held during the afternoons with a total of 271 communications. The first plenary lecture to the society was given by Professor Colin Smith with the title ‘A Research Assessment Perspective’.

Next year’s meeting will be held in Manchester on April 10–13.

Delegates at one of the poster sessions in Firth Hall.
thelial areas while in some inner core parts the cells were seen separated by fibrous connective tissue. The polyhedral cells exhibited eosinophilic fine granular cytoplasm and centrally placed prominent nuclei (fig. 3). These features are consistent with those of the congenital epulis of the newborn.

Discussion

The congenital epulis is rare and the reports in the literature are either those of single cases or descriptions of histological structure.54 The nature and origin of this lesion remain obscure although it is known to be benign and does not recur following excision.5 Undoubtedly, the occurrence of this mass at birth causes considerable anxiety among parents even if it may be asymptomatic. This anxiety may also be shared by clinicians due to the undetermined histogenesis and pathogenesis of the lesion.

It is interesting that our first case not only presented with multiple lesions of variable size but also exhibited polydactylysm. On the other hand, Case 2 presented with a massive lesion located in the primary canine-molar area; a feature somewhat atypical to most of the reported cases in whom the incisor area is apparently the exclusive site of lesion occurrence.

A resolution as to whether congenital epulis and granular cell tumour (myoblastoma) are two separate entities has not yet been achieved even by immunohistochemical analyses.67 Even if these lesions may be different at the cellular level it is apparent that they are benign and do not require radical excision. Notwithstanding this notion, clinicians must be constantly aware of the occurrence of other lesions that may be aggressive and may occur early in life. Lesions of particular concern that may similarly present include embryonal rhabdomyosarcoma, malignant granular cell myoblastoma, alveolar rhabdomyosarcoma, and chondrogenic and osteogenic sarcomas.

With the current knowledge that a number of other lesions, albeit rare, can occur early in life, typical clinical features per se of the congenital epulides should not be entirely relied upon in their diagnosis.

Furthermore, the advent of a spectrum of AIDS-related neoplasms that may occur at any age calls for more elaborate histopathological and histochemical analysis of all such tissue upon excision. In this way the presence of aggressive lesions may be determined at the earliest opportunity for the prompt execution of effective management.

Over approximately 3 years of follow-up the present cases have shown no evidence of recurrence of their lesions.
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References


Scan

Cheesecake could be good for you! US scientists have found that a food additive used to thicken cheesecakes and puddings can also be used as a safe and highly effective drug for lowering blood cholesterol levels. The compound, hydroxypropylmethylcellulose (HPMC) produced a 20% reduction in harmful LDL levels at a dose of 30 grams per day but had no effect on the good HDL levels. HPMC increases the viscosity of material passing through the stomach and intestines. This appears to affect the intestines' ability to digest and absorb cholesterol. HPMC is a big molecule which does not pass into the bloodstream, so eliminating the risk of liver and kidney damage which can occur with long term use of existing anti-cholesterol drugs (Chem Ind 1993; 12: 480.)

Self-injury. Ten thousand people in Britain injure themselves regularly and deliberately. Justin Russell, of the Mental Health Foundation, presents a review of our current understanding of such behaviour (New Scientist 1993; 1882: 25-28). Treatments focus on developing new forms of communication by rewarding desirable alternatives to self-injury in an environment where nagging is banned. Meanwhile biologists have explored the endorphin connection believing that either sufferers inflict injury to gain the euphoria associated with endorphin release or that they have abnormally high levels of endorphins and do not feel the pain. Few drug trials have been reported but studies have shown naltrexone to be effective in some cases.

Thalidomide and HIV. Researchers have discovered that thalidomide can stop HIV from multiplying in infected cells. It apparently works by greatly reducing the production of tumour necrosis factor, which triggers replication of HIV. The team believe thalidomide may be useful for keeping HIV carriers healthy as well as in treating some of the symptoms of AIDS. Thalidomide occurs in mirror-image forms called enantiomers. These are being trialled separately and together to maximise safety and efficacy (Chem Ind 1993; 12: 524.)

Carbon monoxide may be a natural neurotransmitter according to the consensus of recent research. The gas is better known as the poisonous agent in car exhaust fumes which preferentially binds to haem proteins and prevents the uptake of oxygen. The 'genuine' role is as a messenger molecule in regulating levels of cyclic guanosine-3,5-monophosphate (cGMP). cGMP is itself an intracellular messenger molecule which dilates blood vessels by acting on the surrounding muscles. Carbon monoxide (CO) is produced in the body when haem is converted to biliverdin. The discovery that CO and nitric oxide, both gases, are neurotransmitters opens a new field of study as neither is contained by cell membranes (Chem Europe 1993; 29: 556.)

Multiplier