BILATERAL ERUPTION CYSTS OF THE UPPER CENTRAL INCISORS: A CASE REPORT

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ABSTRACT

Eruption cyst is a benign lesion associated with erupting teeth. It usually resolves without intervention but surgical intervention is indicated if it is infected, hurts or increases in size. It can cause tumour scare to the caregivers and psychological stress for the child.

KEY WORDS: eruption cyst, excision, benign

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INTRODUCTION

Eruption cyst is regarded as a benign lesion associated with an erupting primary or permanent tooth. It is seen on the mucosa overlying the tooth that is about to erupt [1]. Intraorally, it appears as a raised swelling in the mucosa of the alveolar ridge. It is usually soft in consistency and can be transparent or bluish or purple if it contains blood. The prevalence is usually low because most dentists classify them as dentigerous cyst and many resolve without intervention[2].

In Nigeria, a prevalence of 2.4% was reported in a recent study [3] while in Israel, a prevalence of 22% was seen among various cystic lesions in 69 children [4]. In Spain, 2.8% of eruption cysts occurred in the incisal and molar areas and the remaining 17.2% occurred in the canine-premolar areas[5]. It usually occurs in first or second decade of life especially around 6-9 years because it coincides with the eruption of the incisors and molars[1]. An earlier study reported that it occurs more in males than females[1].It is usually symptomless but may result in tumour scare in the child and care givers[6].

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Aetiology is not clear but history of infection, trauma and early caries have been associated with it [5]. Theories have been proposed about the origin of eruption cyst. It arises from the separation of the epithelium from the enamel of the crown of the tooth due to an accumulation of fluid or blood in a dilated follicular space [6].

Usually no treatment is done because the tooth erupts through the cyst. However, if the cysts increases in size, hurt the child, or becomes infected, it is excised with scapel to expose the tooth or Er, Cr-YSGG laser can be used for treatment[7]. A study reported that excision was carried after an observation period of 15 days[6].

On radiographic examination, it is difficult to distinguish the cystic space of eruption cyst because both the cyst and tooth are directly in the soft tissue of the alveolar crest and no bone involvement is seen in contrast to dentigerous cyst in which a well-defined unilocular radiolucent area is observed in the form of a half moon on the crown of a non-erupted tooth[1].

Histologically, this cyst presents the same microscopic characteristics as the dentigerous cyst, with connective fibrous tissue covered with a fine layer of non-keratinized cellular epithelium[1].

CASE REPORT

We present a case of bilateral eruption cysts seen at the paediatric dentistry clinic of University Nigeria Teaching Hospital, Enugu, Nigeria.

A 9 year old female presented with her father at the paediatric dentistry clinic of University of Nigeria Teaching Hospital, Enugu, Nigeria with the complaints of jaw swelling in the upper anterior region of 6 months duration (fig 1). The child was staying with her grandmother who did not seek any dental care even though the child complained of name calling by peers. However, the child's father visited them in the village and decided to bring her to the dental clinic because of fear and aesthetic concern. There was a history of the swelling emptying twice but refilled later. There was no history of pain or trauma and the child was not on any medication.

No abnormality was detected on general physical examination while intraoral examination revealed that the oral hygiene was fair with two pinkish swelling of about 1cm by 1 cm in relation to the position of 11 and 21(fig 1). The swelling was fluctuant, not tender and covered the whole crowns of 11and 21. It was also smooth with no ulceration. Hard tissue examination revealed that the child was in mixed dentition stage. Teeth present included 52,53, 54, 55, 16; 62,63,64,65,26; 31,32,73,74,75,36; 41,42,83, 84,85,46.

Occlusal radiograph showed that 11 and 21 were present and at eruption stage (fig 2). There was no sign of bone involvement. A diagnosis of eruption cyst was made based on clinical and radiographic findings.
Surgery was done by excision of dense fibrous tissue around the incisal regions (Fig 3 and 4) and draining the content of the cyst. The incisal edges of 11 and 21 were then exposed.

The child was reviewed after a day and a week later (fig 5). A fast eruption of the teeth was observed.

DISCUSSION

Upper central incisors: 11 and 21 usually erupt between 7 to 8 years. However, in negros and in females, eruption of teeth is earlier [8]. In this case, the child was a 9 year old female and this is a pointer that the tooth ought to be in the mouth but for the eruption cyst.

This case was not associated with any systemic disease although there have been reports of cases associated with harmatoma, natal teeth, Epstein pearl, kinky hair disease[9]. Surgery is usually recommended when there is pain, infection or aesthetic issue [4] and in this case, aesthetics was a major concern to the caregiver and the child. Also, social interaction of the child was affected since peers were cajoling her. The importance of dental awareness by care givers cannot be overemphasized because prompt dental care will be sought. In this case, the father sought dental attention unlike some parents who delay dental care because of poor understanding of dental problems in children [10]. The speedy eruption of the central incisors after excision of the eruption cyst was similar to previous finding [4] buttressing the fact that the thick fibrous tissue hindered the tooth from eruption.

CONCLUSION

Eruption cyst often presents with aesthetic and social problems. Seeking dental care by caregivers will ensure appropriate care which will enhance eruption of the involved teeth and psychological wellbeing of the child.

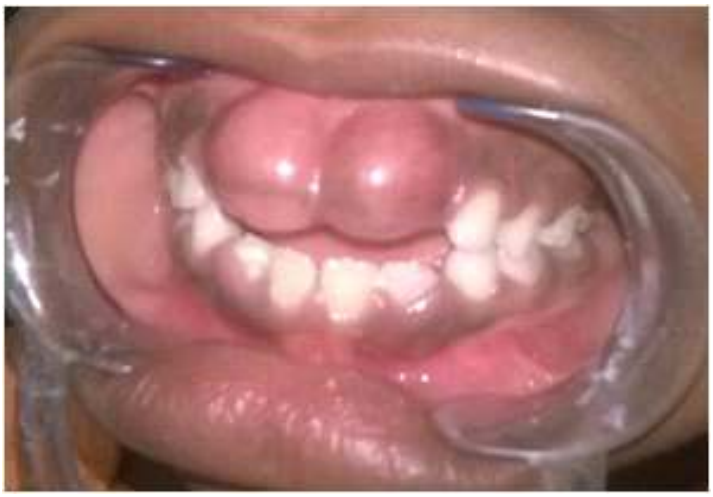

Figure1: Pre operative radiograph showing eruption cysts involving 11 and 21

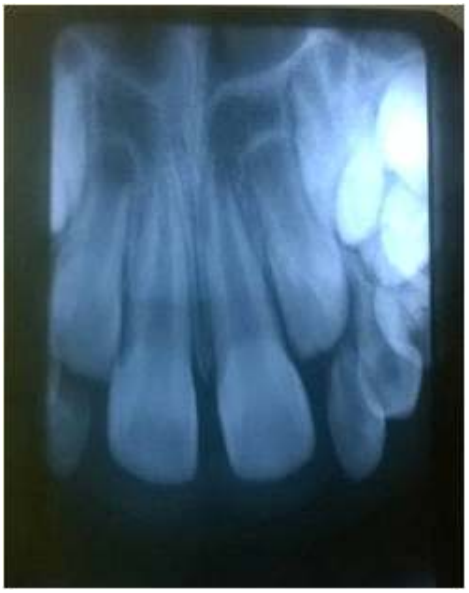

Figure 2
Occlusal radiograph showing 11 and 21 with no radiolucency surrounding the teeth

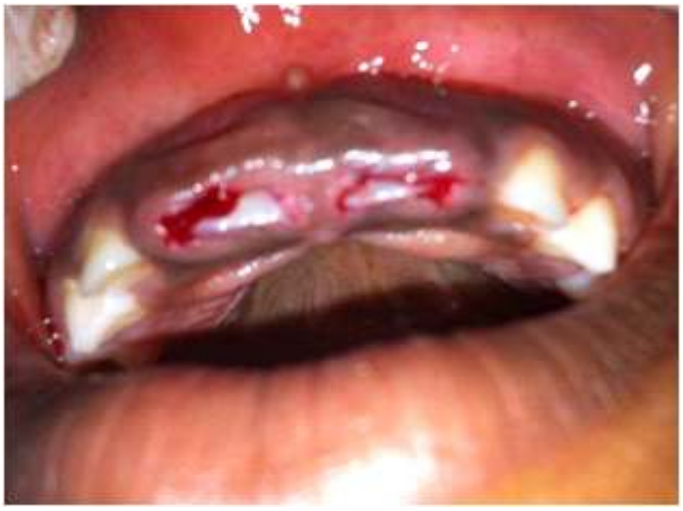

Figure 3: Intra operative photograph showing exposed crowns of 11 and 21

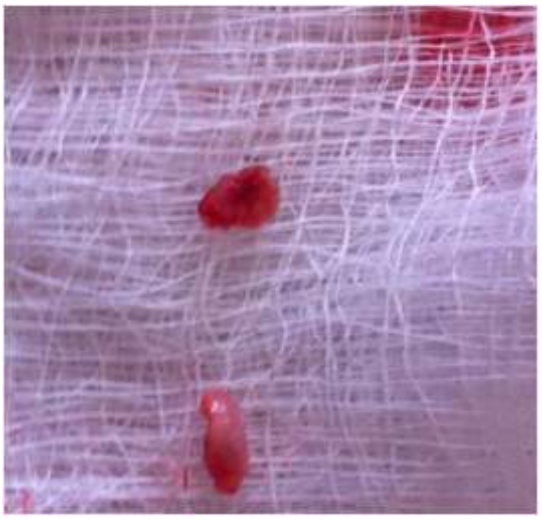

Figure 4: Excised tissue from the incisal edges

Figure 5: post operative photograph showing 11 and 21 after 7 days of excision

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