CASE REPORT

Management of sublingual ulceration in a 12-month-old child

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SUMMARY

The case of sublingual ulceration associated with erupted primary mandibular incisors in a 1-year-old child is presented. Sublingual ulceration is termed as Riga-Fede disease if the patient is less than 2 years old. Generally, the treatment methods for Riga-Fede's disease are discing and extraction of the traumatised teeth. Here, the child was treated with photo-polymerised composite resin coverage of the incisal edges of erupted mandibular incisors. The photo-polymerised resin coverage proved to help in the rapid healing of the ulcerations.

BACKGROUND

Sublingual ulceration is a relatively uncommon complication of primary teeth. Sublingual ulceration is termed as Riga-Fede disease if the patient is less than 2 years old. The lesion was first described by Antonio Riga in 1881 and Francesco Fede performed subsequent histological studies in 1890,¹ subsequently this lesion was termed as Riga-Fede disease. Over the age of 2 years the term oral traumatic granuloma is used.

Traumatic ulceration on the ventral surface of the tongue is commonly associated with the natal and neonatal teeth in newborn.²⁻³ It may also occur in older infants after the eruption of primary lower incisors with repetitive tongue thrusting habit. Riga-Fede disease is a benign ulcerative process of the tongue and frenulum, as a result of repetitive trauma induced by the erupted natal, neonatal or erupting primary mandibular central incisors. The lesion with repeated trauma progresses to an enlarged, fibrous lesion with the appearance of an ulcerative granuloma.⁴

Although this lesion was first described in 1881, not very many cases are described associated with natal or neonatal teeth. Very few cases have been published associated with primary teeth. Numbers of therapeutic options are available, such as smoothing of sharp incisal edges, using topical agents for protection, composite restoration, use of mouth-guard or acrylic splints, and in extreme cases, tooth extraction. The present case report attempts to throw some light on an apparently simple problem, which is sometimes difficult to solve.

CASE PRESENTATION

A 12-month-old female patient reported with painful ulceration below the tongue on the ventral surface including the lingual frenulum with all primary mandibular incisors erupted (figures 1 and 2). She refused to eat, even refusing to drink water on occasions,

Figure 1 The 1-year-old child.

leading to dehydration. The parents were extremely concerned. The patient was seen to have an exaggerated and continuous sucking reflex, with repeated thrusting of the tongue towards the exterior of the

Figure 2 Large sublingual ulceration.

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oral cavity. This lingual reflex seemed to be the one that initiated the ulcer by moving the ventral surface of the tongue over the sharp edges of the semierupted lower incisors. Coverage with composite resin without enamel etching was considered on the incisal surface.

TREATMENT

The patient was made comfortable on the dental chair; the incisal surface was dried and bonding agent was applied without etching the enamel. A layer of composite was applied over it and was photo-polymerised (figure 3). Application of the analgesic gel to aid in wound healing was advised on the ulceration.

OUTCOME AND FOLLOW-UP

After 24 h of initial treatment the mother reported that child was now suckling normally and sleeping without any signs of discomfort. At assessment 2 days after initial presentation, the area was much less erythematous and the floor of the ulcer was beginning to granulate. Eight days later, the ulcer had reduced in size dramatically and the composite splint was carefully removed with the help of sickle scaler.

After 14 days, the ulcer had almost completely epithelialised. At a recall appointment 1 month later, the teeth had further erupted (figure 4).

DISCUSSION

Riga-Fede disease is a reactive, traumatic mucosal disease characterised by persistent ulceration of the oral mucosa.¹ Most frequently it involves the ventral surface of the tongue or the lingual fraenum because the tongue is raked over the teeth.³ Presentation appears to be bimodal, coinciding with natal teeth, neonatal teeth and eruption of the primary teeth. Classification into two discrete groups aids aetiological identification. 'Early' cases (before 6 months of age) are related to natal or neonatal teeth, which often present with hypoplastic enamel and underdeveloped roots, with resultant early mobility. 'Late' cases (6 months of age and older) occur with primary dentition, are frequently habitual and may be related to neurological or developmental disorders.⁵⁻⁷

Although there is little published on this type of lesion, it is probable that it occurs more frequently than discussed in the literature. Awareness among oral health professional is important for caring infants from its intense pain,⁸ failure to eat and drink and consequent dehydration.⁹

Figure 3 Composite coverage over lower incisors.

Figure 4 Healed ulcer area sublingually.

Treatment of Riga-Fede disease has varied over the years. The authors⁹⁻¹¹ have suggested that if the situation is not resolved quickly, it will be necessary to resort to the extraction of the incisors. In case of mild to moderate irritation to the tongue, conservative treatment such as smoothing the incisal edge with an abrasive instrument is advocated.¹² Alternatively, a few authors^{2 13 14} solved a similar problem by placing composites over the edges of incisors so obtaining a similar effect. In the present case, we also tried using a composite restoration to cover the lower incisors to achieve a smooth surface and application of analgesic gel on the ulceration area was decided. The use of the analgesic gel was to relieve pain and aid in wound healing undoubtedly accelerated the healing process. At the follow-up, we confirmed that the lesion was resolved and the infant was feeding normally. The parents' concern over the infant's failure to eat and drink dictated the need for rapid resolution of the lesion.

The early diagnosis of this clinical picture is vital in order to avoid more extensive/longer periods of pain and possible dehydration. The simple conservative treatment proposed avoided other more aggressive and mutilating treatments.

Learning points

- ▶ Mild to moderate ulcerations can be observed on the ventral surface of the tongue in Riga Fede disease.
- ▶ The early diagnosis of this clinical picture is vital in order to avoid more extensive/longer periods of pain and possible dehydration.
- ▶ The simple conservative treatment proposed avoided other more aggressive and mutilating treatments.

Competing interests None.

Patient consent Obtained.

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