

■ Case Report

Riga-Fede Disease

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Abstract

The term Riga-Fede disease has been used historically to describe traumatic ulceration that occurs on the ventral surface of tongue in neonates and infants. The natal and neonatal tooth have been reported to cause ulceration on the ventral surface of the tongue which may affect the child's feeding habits. This appearance was described by Riga and Fede and hence been termed as Riga-Fede disease. It is important to diagnose the lesion early and treat it by eliminating the cause of trauma to avoid untoward complications. Treatment option can be either conservative or extraction of natal and neonatal tooth. This paper presents a case of Riga-Fede disease resolved by conservative treatment i.e., grinding, after which the infant started feeding normally.

Keywords: neonatal tooth, Riga-Fede disease, ulcerated lesion

Introduction

Riga-Fede is a rare condition of benign ulceration caused by repetitive trauma to the lingual tissues by the tooth in children younger than two years of age.¹ The lesion was first described by Antonio Riga in 1881 followed by subsequent histological studies conducted by Francesco Fede in 1890, thus derieving the name Riga-Fede disease.³ Traumatic ulceration on the ventral surface of tongue is commonly associated with natal and neonatal teeth in the newborn.^{1,2} It may also occur in older infants after the eruption of primary lower incisors with repetitive tongue thrusting habit, and in children with familial dysautonomia.⁴ It may interfere with proper suckling and feeding and put the neonate at risk for nutritional deficiencies.⁵ The differential diagnosis includes infective and neoplastic conditions.³ The presence of natal and neonatal tooth is definitely a disturbance of biological chronology whose aetiology is still unknown. However, several factors such as:

superficial position of the tooth germ, infection or malnutrition, febrile states, hormonal stimulation, hereditary transmission of a dominant autosomal gene, osteoblastic activity inside the tooth germ and hypovitaminosis have been commonly related.⁶ We here discuss a case of Riga Fede disease due to neonatal teeth.

Case Report

Twenty seven days old male child was brought to the Department of Pedodontics and Preventive Dentistry with a chief complaint of ulceration over the ventral surface of tongue since 15 days. The mother complained of child exhibiting pain during suckling and was not able to nurse the child. Medical and family history was not significant. Extraoral examination revealed no apparent facial asymmetry; vitals were stable with no lymphadenopathy. Clinical intraoral examination revealed a whitish tooth like structure in the anterior region of mandibular arch exhibiting grade II mobility. The ventral surface of tongue showed single irregularly shaped ulcer of 5 x 6 mm that extended from anterior border of tongue to the lingual frenum with yellowish floor and peripheral erythema (Figure 1, 3). The ulcer was

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tender to palpation with no bleeding or pus discharge. No other abnormality of oral mucosa was observed. The position of the tooth present corresponded to 71 (primary mandibular central incisor) which was confirmed after a mandibular anterior occlusal radiograph (Figure 2). Based on the clinical findings, diagnosis of 'Riga – Fede' disease was made. Since the tooth present was a primary counterpart and not a supernumerary or any odontogenic tooth like structure, it was decided to preserve it by grinding the incisal edge (Figure 3). On follow-up, the lesion was found to be resolved and the infant was feeding normally (Figure 4).

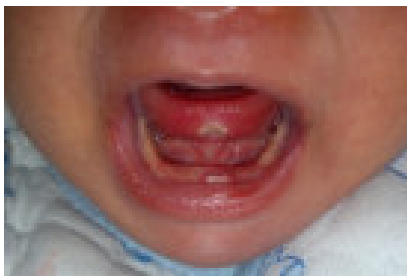


Fig 1. 27 days old baby boy with one tooth in the mandibular anterior region and "Riga-Fede disease" ulceration on the ventral surface of the tongue caused by neonatal teeth



Fig 2. Mandibular occlusal Radiograph taken at age 27 days. Neonatal teeth 71 is present with well formed crown but minimal root development.



Fig 3. After grinding of neonatal tooth



Fig 4. Follow up after 1 month

Discussion

Riga-Fede disease is a reactive, traumatic mucosal disease characterized by persistent ulceration of the oral mucosa.³ Most frequently it involves the ventral surface of the tongue or the lingual frenum because the tongue is raked over the teeth.² Presentation appears to be bimodal, coinciding with natal teeth (present at birth) or neonatal teeth (erupting during the first 30 days of life), and eruption of the primary teeth.^{7,8} Major complication from neonatal teeth is ulceration on the ventral surface of tongue caused by tooth's sharp incisal edge.⁷ Typically the lesion begins as an ulcerated area with repeated trauma and it may progress to an enlarged, fibrous mass with appearance of an ulcerative granuloma. It may interfere with proper suckling and feeding.⁹

Treatment of Riga Fede disease has varied over the years. In case of mild to moderate irritation to the tongue, conservative treatment such as smoothing the incisal edge with an abrasive instrument is advocated to alleviate feeding difficulties or complications like Riga-Fede disease.¹⁰ Alternatively, a small increment of composite may be bonded to the incisal edges.¹¹ Extraction may be needed in cases where the Riga Fede disease remains unhealed, where the involved tooth is hypermobile, increasing the chance of aspiration. Although many investigators have mentioned the possibility of aspiration of these teeth, this risk, in reality, is an unlikely possibility since there are no reports in the literature of the actual occurrence of aspiration. However, cases of spontaneous tooth exfoliation have been reported.¹² If extraction is indicated, the child should be at least ten days or above. Otherwise prophylactic administration of vitamin K (0.5 - 1.0 mg, IM) is advocated before and after extraction, since vitamin K is essential for the production of prothrombin in the liver as there could be risk of haemorrhage.¹³

Summary

The case presented with large ulceration on the ventral surface of the tongue. Since the erupted tooth was found to be primary mandibular central incisor, extraction was deferred and the parents were counselled regarding the importance of preserving the erupted tooth. Selective grinding of incisal edge was done as a treatment procedure. On follow-up the lesion resolved facilitating proper feeding of the child.

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