

Case Report

Riga-Fede Disease Due to Neonatal Tooth: A Case Report

Nitin Sharma, Subhash Chander, Shweta Soni, Shamsher Singh, Madan Gopal Chodhary

Abstract

The natal and neonatal tooth has been reported to cause ulceration on the ventral surface of the tongue in neonates and infants, which may affect the child's feeding habits. This appearance was described by Riga and Fede and hence been termed as Riga-Fede disease. Treatment option is either conservative or extraction of natal and neonatal tooth. This paper presents a case of Riga-Fede disease caused by a neonatal tooth. Extraction of neonatal tooth was planned. On follow-up the lesion was resolved and infant was feeding normally.

Key words: Mouth Disease; Oral Ulcer; Natal Teeth; Predeciduous Tooth; Newborn; Riga-Fede.

Nitin Sharma, Subhash Chander, Shweta Soni, Shamsher Singh, Madan Gopal Chodhary. Riga-Fede Disease Due to Neonatal Tooth: A Case Report. International Journal of Oral and Maxillofacial Pathology; 2012;3(2):00-00. ©International Journal of Oral and Maxillofacial Pathology. Published by Publishing Division, Celesta Software Private Limited. All Rights Reserved.

Received on: 22/11/2011 Accepted on: 21/04/2012

Introduction

The lesion was first described by Antonio Riga in 1881 and Francesco Fede done subsequent histological studies in 1890¹, subsequently this lesion was termed as Riga-Fede disease. 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. The differential diagnosis includes infective and neoplastic conditions. Traumatic ulceration on the ventral surface of 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. It may interfere with proper suckling and feeding and put the neonate at risk for nutritional deficiencies.⁴ The presence of natal and neonatal tooth is definitely a disturbance of biological chronology whose aetiology is still unknown. Neonatal tooth has been related to several factors, such as superficial position of the germ, infection or malnutrition, febrile states, eruption accelerated by febrile incidents or hormonal stimulation, hereditary transmission of a dominant autosomal gene, osteoblastic activity inside the tooth germ and hypovitaminosis.⁵ Here, an interesting case of Riga Fede disease due to neonatal teeth is discussed

Case report

The parents of twenty days old child reported to department of Pedodontics and Preventive dentistry with chief complaint of ulcerated area on the ventral surface of tongue of their child. The mother complained

of child exhibiting pain during suckling and could not be able to nurse the child. Clinical examination revealed a whitish tooth like structure in the anterior region of mandibular arch, exhibiting grade II mobility. The ventral surface of tongue showed 5 x 8 mm ulceration that extended from anterior border of tongue to lingual frenum (Figure 1a). On palpation of involved area pain was felt. Examination of the rest of intraoral mucosa revealed no other lesion. The cause of this ulceration was due to neonatal tooth. Hence, extraction of teeth was chosen as treatment of choice over more conservative treatment which shows slower healing. Extraction of the offending neonatal tooth was carried out under topical Anastasia, which patient tolerated well (Figure 1b). Extracted tooth showed well developed crown and a very short root (Figure 1c). On follow-up it was observed that child was feeding normally.

Discussion

Riga-Fede disease is a reactive, traumatic mucosal disease characterized 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 (present at birth) or neonatal teeth (erupting during the first 30 days of life), and eruption of the primary teeth. Classification into two discrete groups aids etiological identification. 'Early' cases (before six 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 (six months of age and

older) occur with primary dentition, are frequently habitual, and may be related to neurological or developmental disorders.^{6,7}

In case of mild to moderate irritation to the tongue, conservative treatment such as smoothing the incisal edge with an abrasive instrument is advocated.⁸ Alternatively a small increment of composite may be bonded to the incisal edges.⁹ Extraction may be needed to alleviate feeding difficulties or

complications like Riga-Fede disease. Extraction may also be indicated if child's age is ten days or above and child has appropriate amounts of Vitamin K in the blood. Otherwise prophylactic administration of vitamin K (0.5 - 1.0 mg, l,m) 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.¹⁰



Figure 1: The Photograph of Infant with a neonatal tooth causing sublingual ulceration (a), post-extraction of neonatal tooth (b) and the extracted neonatal tooth (c).

This present case reported with a large ulceration of tongue and the conservative approaches might have delayed healing with negative impact on feeding. Hence, extraction was planned as the treatment of choice.

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