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Bednar's ulcer: A forgotten clinical entity

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Abstract
Bednar's aphthae (ulcera pterygoidea) is a type of mouth ulcers which occurs in neonates and infants. The lesions are located on the palate and are caused by trauma. Bednar's aphthae are common and they heal spontaneously. Due to lack of knowledge, they are often misdiagnosed and subjected to unnecessary investigations. We hereby present a case 6 week old infant with Bednar ulcer, so that this clinical entity can be highlighted in recent literature.

Keywords: aphthae, bednar, neonate, ulcer

Introduction

Lesions in oral mucosa (candidiasis, aphthous ulcer, stomatitis, herpetic ulcers, traumatic injury are oftenly encountered in children in outpatient departments. The classification and incidence rates remain unclear. The incidence rate of oral ulcers in children varies from 4.1% to 52.6% [1]. Ulcerative lesions of the oral mucosa show pathologies of either infectious or traumatic origin [2,3]. Lesions of infectious origin are easy to diagnose due to their distinct form and associated clinical features such as fever. Traumatic lesions are usually created by pacifiers bottle feeding or orthodontic prostheses. Bednar's aphthae are small, shallow ulcers on the edge of newborns' palates and are typically caused by trauma of bottle nipple or even the mother's breast during feeding [4]. Bednar's aphthae is a type of mouth ulcers which occurs in neonates and infants. The lesions are located on the palate and are caused by trauma [5]. The condition was first described in 1850, by the Austrian physician Alois Bednar [1]. Bednar's aphthae are common and they heal spontaneously. Due to lack of knowledge they are often misdiagnosed. We hereby present a case 6 week old infant with Bednar ulcer, so that this clinical entity can be highlighted in recent literature.

Case

A 6-week old female infant who was born at 37 weeks of gestation with birth weight of 2.7 kg, presents for evaluation of increased irritability, reduced feeding, increased crying and fussiness with feeding during the past 10 days. The infant was born through normal vaginal delivery, had done well in postnatal period and was discharged without any complications. She was on exclusive breast feeding and was gaining weight. However, during the past 10 days her mother noticed that she is taking half of her normal feeds and cries and becomes very irritable while feeding. On examination the patient was well-appearing with normal vital signs. Anthropometric parameters were normal. Present weight was 3.2 kg. Her examination was unremarkable except aphthae in the mouth (Fig1). It was midline, symmetrical 1x1 centimeter oval ulcerative lesion with smooth border at the junction of hard and soft palate. There was no associated erythema or exudation. Baseline laboratatory profile was normal. The cause found was faulty (horizontal) position of feeding. Breast feeding with correct semireclined position was demonstrated to mother. Infant improved in next 7 days with less crying and improved feeding. On follow up after 2 weeks, infants was doing well and the ulcer had healed.

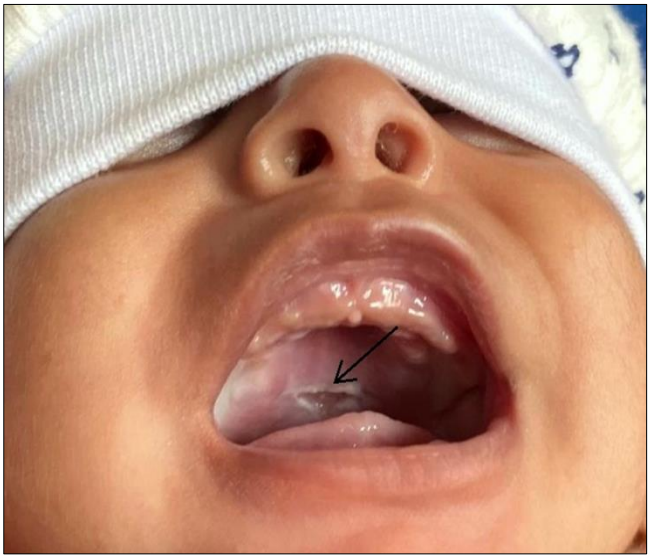

Fig: 1

Discussion

Bednar's aphthae are described as small palatal ulcers seen in otherwise healthy newborn infants. These ulcers can be seen from the age of 2 days to 6 weeks [6]. The junction of hard and soft palate is the typical location. Usally described as bilaterally symmetrical and are located medial to the faucial pillars [4]. They may be preceded by hyperemia of the mucosa as seen in aphthous ulcers [6]. Due to extreme pain while sucking, the infant may be highly irritable and may display inconsolable crying during feeding. Bednar's aphthae are not rare, they often remain misdiagnosed or undiagnosed due to lack of concern and knowledge. These are seldom reported in recent literature. Prospective study by Nebgen *et al*. in 2010 recorded the incidence rate of 15% (236 of the 1,494 neonates), suggesting that Bednar's aphthae incidence is still high and steady [4]. Seung-Woo Nam *et al* in their study found Bednar ulcer in term, normal weight, born through vaginal delivery infants. They observed the mean age of diagnosis to be 55±45 days [1]. Our infant was also fulfilling their observations Neonates born through the vaginal delivery and on formula feeding with bottle was found to be at more risk of Bednar's aphthae [4]. The hypothesis of immunological reaction to formula feed or vaginal flora has been suggested [4, 7]. Our infant was on exclusive breast feeding. The trauma caused by horizontal feeding position has also been implicated in the development of soft palatal ulcers [8]. The slight upright position during feeding resulted in the resolution of ulcers in the study by Nebgen *et al* [4] and in the report by Tricarico *et al* [5]. Those on bottle feeding, changing the hole size of the nipple has shown positive results in terms of healing of ulcer as smaller hole size causes more friction leading to trauma [4, 5].

The cause of distress in a newborn is rarely thought to lie in the throat and the oral cavity of the newborn infant is seldom examined with a tongue depressor. Lesions such as thrush can be picked up, but the Bednar's ulcer, being posteriorly located are likely to be missed. Routine oropharyngeal examination is rarely performed to avoid any trauma to the fragile mucosa of the newborn. Bednar's ulcers are self-limiting and have been reported to heal within 1-4 weeks. But due to the ulcerative process, the blood and lymph vessels are opened by this process and this may act as source of sepsis in the newborn, especially in a debilitated one. Hence, care has to be taken for the infant to prevent the complications [6].

Conclusion

This case highlights the need to examine the oral cavity of a distressed newborn, especially if the baby appears to be hungry and still does not feed well. One must take a good feeding history and also observe the position of the baby while feeding. Bednar's aphthae are lesser known to Pediatricians, even though they are not uncommon. Knowledge about their clinical presentation will help avoid needless investigations and invasive diagnostic procedures. Reducing parental anxiety by educating them about the self-limiting nature of the disease is also important.

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