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CASE REPORT

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'Pink Tooth': An Obvious Manifestation of Insidious Pathology

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Abstract

Resorption is a condition associated with either physiologic or a pathologic process resulting in a loss of dentin, cementum, and/or bone. Root resorption is observed in a routine day to day practice and with its early detection, diagnosis, and management, the prognosis for rendered treatment can be favourable. This article highlights a simple interesting case report of internal root resorption.

Keywords: *deciduous molar, internal resorption, pink tooth, root defect, trauma*

Introduction

A ten year old male patient came for a routine dental examination. His past medical and dental history was non-contributory. On examination, a pink discoloration of his right deciduous mandibular first molar (84) was observed (Figure 1). The patient reported a past previous history of trauma and was asymptomatic. The affected tooth was devoid of any dental caries. Pulp sensibility test result was positive. An intraoral periapical radiograph (IOPA) revealed a uniform radiolucency and widening of the pulp chamber of the tooth in question. A diagnosis of pink tooth of mummery due to internal resorption was made. The patient underwent a successful endodontic management of the right mandibular first molar.

Figure 1. *Pinkish discoloration of right mandibular molar (84).*

According to the glossary of the American Association of Endodontists, resorption is defined as a condition associated with either a physiologic or a pathologic process resulting in the loss of dentin, cementum, or bone [1]. However, it presents itself either as a physiologic or a pathological process occurring internally (pulpally derived) or externally (periodontally derived). Physiologic resorption is associated with deciduous dentition resulting in their exfoliation, paving the pathway for the eruption of their succedaneous teeth. Unlike the deciduous teeth, the permanent teeth rarely undergo resorption unless stimulated by a pathological process. Resorption is a pathologic process that often eludes the clinician with its variable etiologic factors and diverse clinical presentations. The key cells involved in tooth resorption are odontoclasts which are multinucleated cells that produce resorption lacunae. Pathologic resorption occurs following traumatic injuries, orthodontic tooth movement, or chronic infections of the pulp or periodontal structures [1]. In the present case, trauma was the prime etiological factor that can be attributed to the incidence of internal root resorption.

External resorption begins from the external or cervical aspect of the tooth and proceeds inwards and is associated with factors like periapical pathosis, pressure from orthodontic treatment, and rapidly growing tumors. Internal resorption (IR) is a rare, insidious, resorptive pathological process, beginning in the pulpal space and extending into the surrounding tooth tissue [1].

Internal resorption was first reported by Bell in 1830. Pink tooth of Mummery (1920), so called due to the presence of a pink discoloration on the crown, is named after the anatomist James Howard Mummery [2,3]. This is due to the loss of dentin creating a large pulp space, which allows more blood vessels to fill the area and results in a pinkish hue. Internal resorption can be categorized by the type/cause of resorption as inflammatory,

transient, progressive, and replacement [2]. IR is a relatively rare occurrence, and most cases follow injury to pulp tissue, such as physical trauma or caries-related pulpitis [4]. It is usually found either in the mid or apical root area which is discovered by chance on routine radiographs or by the clinical sign of a "pink spot" on the crown. The pulp can either show partial or complete necrosis. In an actively progressing lesion, the tooth may be partially vital and may present symptoms typical of pulpitis [2].

Pink discoloration of the teeth is also seen in patients with lepromatous leprosy, trimipramin intoxication, hypothermia and pneumonia [5]. Pinkish discoloration of the teeth is considered to be an important aspect of forensic science, where in the phenomenon of post-mortem pink teeth was seen in cases of drowning, strangling and suffocation. The pinkish appearance of the tooth in these cases is due to the marked congestion in the head region, leading to congestion within the pulp followed by haemorrhage and diffusion within the pulp chamber.

Conclusion

The diagnosis and management of internal root resorption is always been a challenge to dental practitioners. Due to its insidious pathology, internal resorption can progress to a great extent before its detection leading to a questionable prognosis and early extraction. However, an early detection and a correct differential diagnosis is essential for successful management of IR to prevent over weakening of remaining tooth structure and root perforations.

References

1. Ne RF, Witherspoon DE, Gutmann JL. Tooth resorption. *Quintessence Int.* 1999; 30: 9-25.
2. Thomas P, Pillai RK, Ramakrishnan BP, Palani J. An Insight into Internal Resorption. *ISRN Dentistry.* 2014: 7.
3. Ingle JI, Barkland LK, Baumgartner JC. Ingle's Endodontics. (6th edn), Lewiston: BC Decker; 2008.
4. Datana S, Radhakrishnan V. Internal resorption: an unusual form of tooth resorption. *Med J Armed Forces India.* 2011; 67: 364-366.
5. Rai B, Kaur J. Evidence-Based Forensic Dentistry. Pink teeth: An Important Aspect for Forensic Science. *Springer.* 2013; 18: 169-174.

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