

# Hypercementosis – A Periscopic Problem Hiding in Plain Sight

## Abstract

Hypercementosis refers to an adaptive change in the periodontal ligament characterized by increased cementum thickness on the root surface above and beyond the extent necessary to fulfil its normal functions, resulting in abnormal thickening with macroscopic changes in shape.

**Keywords:** hypercementosis, dental Cementum, periodontal ligament

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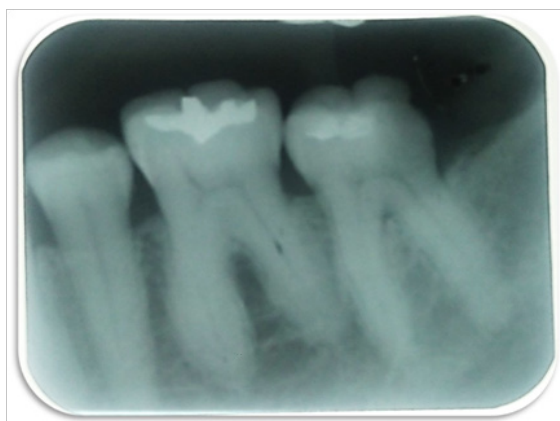
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## Case report

A 36-year-old medically fit male patient had reported to our department with a chief complaint of sharp throbbing pain in lower left back tooth region since 1 week. His medical, family and personal histories were non-contributory. On clinical examination, there were silver amalgam restorations on the left mandibular first and second molar. However, the restoration on the second molar was fractured and a deep cavity could be appreciated on the distal-half of the tooth and was tender to percussion. An IOPA was advised which revealed there was an evident radiolucency involving the pulp and widening of PDL space which confirmed the diagnosis as apical periodontitis. But, as an incidental finding, club-shaped enlargement of the mesial and the distal root was seen suggestive in relation to the left mandibular first molar suggestive of hypercementosis of a single tooth as the adjacent teeth were not affected (Figure 1). Patient was referred to department of endodontics as root canal treatment was needed for the second molar and he was also referred to department of periodontics for oral prophylaxis and root planning.



**Figure 1** Hypercementosis in relation to left mandibular first molar.

## Discussion

Hypercementosis, also known as cementum hyperplasia, is characterized by non-neoplastic thickening of the cementum. It may be localized at the apex of the root, on any of the root surface or integrated with complete root involvement.<sup>1</sup> This condition may be isolated comprehending single tooth, may involve multiple teeth, or may show up as a generalized process. Premolar teeth are proclaimed to involve most frequently.<sup>2</sup> Generally, the cementum-like substance is deposited in concentric layers on the entire root surface or limited to only the apical portion. Now, in practicality it is very difficult to assess the exact amount of cementum thickness deposited on a radiograph, since cementum and dentin have indistinguishable radiodensity. Although in literature hypercementosis has been classified under four types mainly based on its morphologic appearance: Type A– Normal root, Type B– Club-shaped diffuse, Type C– Focal/localized, Type D– ‘Shirt sleeve cuff’ appearance.<sup>3</sup> Based on this classification our case clearly fell under as type B. Now on a treatment front, patients with hypercementosis, if otherwise healthy, stand in no need of any treatment. But, in cases of treatment needs such as endodontic procedures and need for extraction it can make the procedure the desired procedures quite cumbersome, gruelling and challenging. Thus, there is a need for the practitioner to be aware and be on guard before undertaking any invasive procedures.<sup>4</sup>

## Conclusion

Noted American author Don Brown once said, “An incident is just the tip of an ice-berg, a sign of a much larger problem below the surface.” Perhaps, hypercementosis is the dental condition for which in reference to the above lines, one could not agree more. Thus, having a thorough knowledge of its existence, possible associated complications and likewise planning treatment for such teeth is something every practitioner should always keep in mind.

## Acknowledgements

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## Conflict of interest

The authors declare that there is no conflict of interest.

## References

1. Pauly G, Kulkarni AV, Kashyap RR, et al. The Bulky Boulder Roots: A Case of Hypercementosis. *Clin Radiol Imaging J.* 2017;1(2):000109.
2. Israel H. Early hypercementosis and arrested dental eruption: Heritable multiple ankylodontia. *J Craniofac Genet Dev Biol.* 1984;4(3):243–246.
3. Pappen FG, Fagonde CG, Martos J, et al. Hypercementosis: a challenge for endodontic therapy. *Revista Sul-Brasileira de Odontologia.* 2011;8(3):321–328.
4. Patil SR, Yadav N. Generalized hypercementosis with multiple missing teeth in a young female: A rare case report. *Int J Health Allied Sci.* 2015;4(3):178–180.