Wardati Sahimin YAKOB and Mohin MOMIN

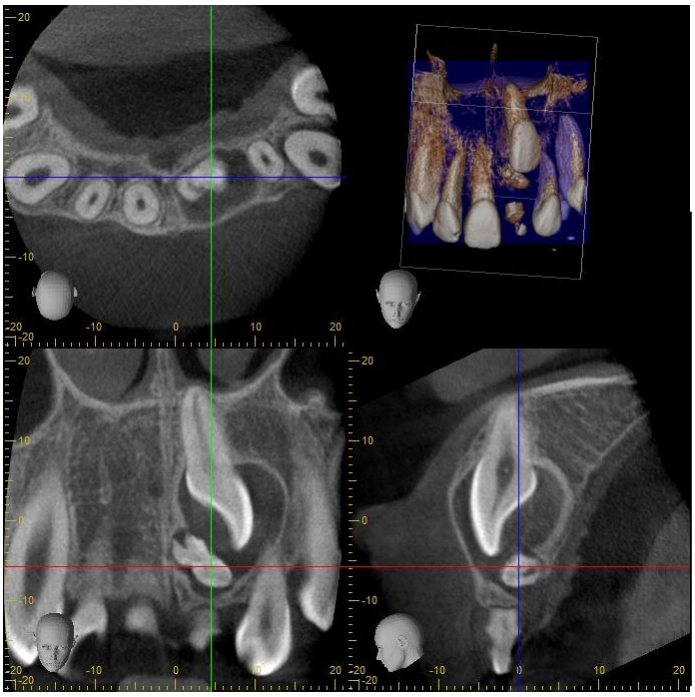

Figure 1

A 12 year old boy presented with an over-retained maxillary left primary central incisor. Clinical examination revealed the presence of all his permanent incisors except the maxillary left permanent central incisor. The crown of the maxillary left permanent central incisor was palpable on the buccal mucosa, apical to the over-retained tooth. Special investigation including cone-beam CT scan of the area of interest was requested. One of the snapshot images of the cone-beam CT is shown here.

What is the diagnosis?

Answer*: refer to page 145*

Correspondence author: Dr. Hjh Dyg Wardati Sahimin Binti Hj Yakob, Associate Dental Specialist, National Dental Centre, Berakas, Bandar Seri Begawan, Brunei Darussalam.
email: wardati.yakob@moh.gov.bn

(*Refer to page 132*)

Answer: Presence of a supernumerary tooth obstructing the eruption of the permanent incisor

The cone beam CT scan of the area of interest showed evidence of a small tooth-like structure (supernumerary tooth) located between the crown of the unerupted permanent incisor and the root of the over-retained primary incisor.

The eruption of a maxillary incisor, which normally occurs between 7-8 years of age, is considered to be delayed if a) the contralateral incisor has erupted more than 6 months earlier; b) both incisors are unerupted and the lower incisors have erupted over a year previously or c) the eruption pattern does not follow the normal sequence e.g. the lateral incisor erupting before the central incisor[1]. Unerupted maxillary incisors have been reported to occur in 0.13% of the 5-12 year age group[2].

One possible cause of delayed maxillary incisor eruption is the presence of a physical obstruction such as supernumerary teeth. A supernumerary tooth is a tooth in addition to the normal tooth series. Supernumerary teeth have been reported to be associated with delayed eruption of the permanent incisors in 28% and 38% of the cases[3].

MANAGEMENT

Management of unerupted maxillary incisor often requires multi-disciplinary dental care involving Paediatric Dentist, Orthodontist and Oral Surgeon.

In this case, the delayed eruption of the maxillary left permanent central incisor was associated with an unerupted supernumerary tooth. The late presentation of the case had resulted in loss of central space due to midline shift of the contralateral maxillary central incisor and mesial drift of the maxillary left permanent lateral incisor. Furthermore, the root development of the affected incisor has matured, thus, the eruptive force that is required to cause normal eruption of the incisor has diminished and the affected incisor is less likely to spontaneously erupt even after surgical removal of the supernumerary tooth. Based on the Royal College of Surgeons of England's guidelines[1] on the management of unerupted maxillary incisors, the management of this case would include surgical removal of the supernumerary tooth, orthodontic re-creation of the space to allow for the eruption of the affected incisor into the arch as well as orthodontic traction to move the unerupted maxillary left permanent central incisor into the line of arch.

REFERENCES

1: Yaqoob O, O'Neill J, Gregg T, Noar J, Cobourne M, Morris D. Management of unerupted maxillary incisors. Available from: www.http://www.rcseng.ac.uk/fds/publications-clinical-guidelines/clinical_guidelines/documents/ManMaxIncisors2010.pdf. [Accessed 14th February 2017].
2: Mac Phee CG. The incidence of erupted supernumerary teeth in consecutive series of 4000 school children. Br Dent J 1935; 58**:** 59–60.
3: Leyland L, Batra P, Wong F, Llewelyn R. A retrospective evaluation of the eruption of impacted permanent incisors after extraction of supernumerary teeth. J Clin Pediatr Dent 2006; 30: 225–31.