Images in Medicine

Supplemental Maxillary Permanent Central Incisor or Macrodontia of Lateral Incisor! A Diagnostic Challenge

NAVIN HADADI KRISHNAMURTHY¹, PRASANNA KUMAR BHAT², VEENA ARALI³, RAKESH CHIKKAPPA BASAVARAJENDRAPPA⁴

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A 13-year-old girl reported to the Department of Pedodontics and Preventive Dentistry at Rajarajeswari Dental College and Hospital, Bangalore for a routine dental check up. The family and medical histories were non contributory. No abnormalities were detected on extraoral examination. On intraoral examination, a supplemental tooth with morphology similar to that of permanent maxillary central incisors was seen [Table/Fig-1-3] in the first quadrant. It was also noticed that there was a missing maxillary lateral incisor in the same arch. The supplemental tooth was found out based on the alignment of the incisors corresponding to the dental and facial midline. Therefore, the distal most central incisor on right side was confirmed as supplemental tooth or it may be a case of macrodontia of maxillary right lateral incisor to rule out any associated syndrome with the clinical finding, thorough general examination was done and pediatrician consent was also obtained.

Orthopantomogram (OPG) [Table/Fig-4] of the patient revealed complete root formation with healthy periodontium in relation to central incisors and its supplemental tooth.

The crown and root morphology of teeth in question was identical with the other two maxillary central incisors. Hence it's a challenge for the clinician to come to a final diagnosis regarding supplemental central incisor or macrodontia of lateral incisor. However, the management depends upon the type and position of these teeth, their effects on adjacent teeth, and aesthetic requirements of the patient. In the present case, considering good oral hygiene status, well aligned teeth in the dental arches, congenitally missing maxillary right lateral incisor and acceptable aesthetics, it was decided to recontour the supplemental central incisor into lateral incisor, to enhance the aesthetics after the eruption of permanent canines.

The presence of additional tooth resembling the normal series of dentition is termed as supplemental tooth [1]. The present case is unusual as there were three maxillary central incisors with all of them having similar morphology. Supplemental teeth are mostly seen bilaterally [2], but in the present case, there was a unilateral occurrence. The complications which are routinely encountered with the presence of supplemental tooth includes several pathological conditions such as widening of follicular space, formation of dentigerous cyst, necrosis of dental pulp, obliteration of root canal, resorption of root and ankylosis [3], but in the present case the supplemental teeth was fully erupted and occupied the place of congenitally missing maxillary lateral incisor and there was no disturbance either in eruption status of any tooth or occlusal disharmony. Supplemental teeth can cause aesthetic or functional problems, especially when situated in the maxillary anterior region. In our patient there was mild asymmetry of maxillary arch due to the presence of supplemental tooth and thus it was decided to contour the supplemental maxillary central incisor as maxillary lateral incisor after the eruption of permanent canines.

As dentist we should be aware of such morphological variations observed during routine dental examination and one should not be very dogmatic about standard morphological features of the teeth and careful evaluation needs to be done so that a proper treatment strategy can be planned accordingly.



[Table/Fig-1]: A clinical image showing three central incisors. [Table/Fig-2]: Intraoral maxillary view showing supplemental right central incisor. [Table/Fig-3]: Intraoral photograph showing supplemental right maxillary central incisor. [Table/Fig-4]: Panoramic Radiograph showing supplemental maxillary central incisor on right side.

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PARTICULARS OF CONTRIBUTORS:

- Reader, Department of Pedodontics and Preventive Dentistry, Rajarajeswari Dental College and Hospital, Rajiv Gandhi University of Health Sciences, Bangalore, India.
 Senior Lecturer, Department of Pedodontics and Preventive Dentistry, Rajarajeswari Dental College and Hospital,
- Rajiv Gandhi Univ. of Health Sciences, Bangalore, India.
- Reader, Department of Pedodontics and Preventive Dentistry, Rajarajeswari Dental College and Hospital, Rajiv Gandhi University of Health Sciences, Bangalore, India.
 Post Graduate Student, Department of Pedodontics and Preventive Dentistry, Rajarajeswari Dental College and Hospital, Rajiv Gandhi University of Health Sciences, Bangalore, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR: Dr. Prasanna Kumar Bhat

Senior Lecturer, Department of Pedodontics and Preventive Dentistry, Rajarajeswari Dental College and Hospital, Bangalore-74, India. E-mail : dr_prasannabhat@yahoo.com Date of Submission: Jul 24, 2015 Date of Peer Review: Sep 09, 2015 Date of Acceptance: Nov 06, 2015 Date of Publishing: Jan 01, 2016

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