PREVALENCE AND PATTERNS OF TOOTH AGENESIS AMONG MALAY CHILDREN

Shani Ann Mani¹, Wan Salmah Yang Mohsin² and Jacob John³

¹Department of Paediatric Dentistry and Orthodontics, ³Department of Diagnostics and Integrated Dental Practice, Faculty of Dentistry, University Malaya, Kuala Lumpur; ²Jabatan Bedah Mulut, Hospital Melaka, Melaka, Malaysia

Abstract. Tooth agenesis in Malay children, hitherto unreported, was assessed retrospectively from orthopantomograms of 834 healthy children aged 12-16 years who attended the Dental Clinic of Universiti Sains Malaysia. All teeth, including third molars, were assessed for agenesis. On an average, 2.3 teeth were missing per child. Missing third molars were found in 25.7% of children with one or two third molars found to be missing in 18.3% of children. Three point two percent of children had missing teeth other than third molars. After third molars, the upper lateral incisors were found to be the most common missing tooth (1.7%), followed by upper and lower second premolars (1.5%). Eight missing upper canines were also seen (1%). Bilateral agenesis was more common than unilateral agenesis. There were no significant differences between males and females. There was a significant difference between missing teeth between the maxilla and the mandible and right and left side, with more missing teeth in the maxilla and on the right side. The odds of any 3rd molar missing were increased 3.3 times when there was any other missing tooth. In conclusion, the prevalence of tooth agenesis among the studied population was within the normal range, but less than some Asian countries. Unlike other Asian countries, the upper lateral incisor was the most common missing tooth. The prevalence of maxillary canine agenesis was higher than most previous reports. Missing teeth were associated with missing third molars, which is likely due to a genetic abnormality.

Keywords: agenesis, tooth, missing, congenital, hypodontia, third molar, children

Correspondence: Dr Shani Ann Mani, Department of Children's Dentistry and Orthodontics, Faculty of Dentistry, University Malaya, 50603 Kuala Lumpur, Malaysia. Tel: +60129655321; Fax: +60379674530 E-mail: shani_jacob@yahoo.co.in