Missing Maxillary Lateral Incisors and Persistent Primary Central Incisors- Case Reports

Dr. Ravi Sunder Ragam*, Dr. Neelima Pilli**

* Assistant Professor, Department of Physiology, RIMS, Ongole-523001, India
** Assistant Professor, Department of Anatomy, RIMS, Ongole-523001, India

Abstract- On routine medical checkups of 1st MBBS students during the admission into medical college, 2 boy students were found to have persistent primary mandibular central incisors and 1 girl student was found to have only 2 maxillary incisors instead of 4 in the upper jaw where the lateral maxillary incisors were missing. In the first two cases, on inspection of dentition of both boys, the primary milk teeth were present in the mandible only. These were small when compared to other secondary dentition. Gums were normal. There was no eruption of permanent mandibular central incisors. The primary teeth were as strong as the other permanent teeth. There was no considerable difficulty in speech or mastication. There was neither history of allergy nor any family history. In the third case, the girl student was unaware of her missing teeth and on inspection of her teeth; the lateral incisors of upper jaw were missing. There were only two central incisors on the maxillary arch with their respective sockets. There was no gap between the incisors and the canines denoting the absence of their sockets as well. Mandibular incisors were 4 with their sockets and all the other teeth were mere normal. No gum abnormality was seen. There was neither significant history of allergy nor any family history.

Index Terms- Missing maxillary lateral incisors, persistent primary mandibular central incisors, and allergy

I. INTRODUCTION

Teeth and nails represent the exoskeleton of the human body. The number of teeth in various stages of life plays a vital role in age determination of the individual. At birth maxilla and mandible are edentulous. Primary teeth or milk teeth starts to erupt from 6-7 months of age and completed by 2-3 years of age. The number of primary teeth is 20 (8 incisors, 4 canines, & 8 primary molars). The dental formula is 2102 which represent the number of teeth in each half of the upper or lower jaw. As the age of the child advances, the milk tooth start to denude at the age of 6-7 years and permanent tooth commence eruption. By 18-25 years of age, all the milk tooth are replaced by secondary dentition which are otherwise called permanent teeth with dental formula 2123 and the total number of teeth counts to 32. As the teeth erupt twice in the lifecycle of an individual, humans are classified as diphyodonts. This article presents 3 peculiar case reports which are observed in 1st MBBS students regarding their pattern of abnormal dentition.

II. MATERIALS AND METHODS

200 medical students underwent general medical check-up during their admission into government medical college and 3 students (2 boys & 1 girl) were found to have abnormal dentition pattern as reported.

FIGURES:

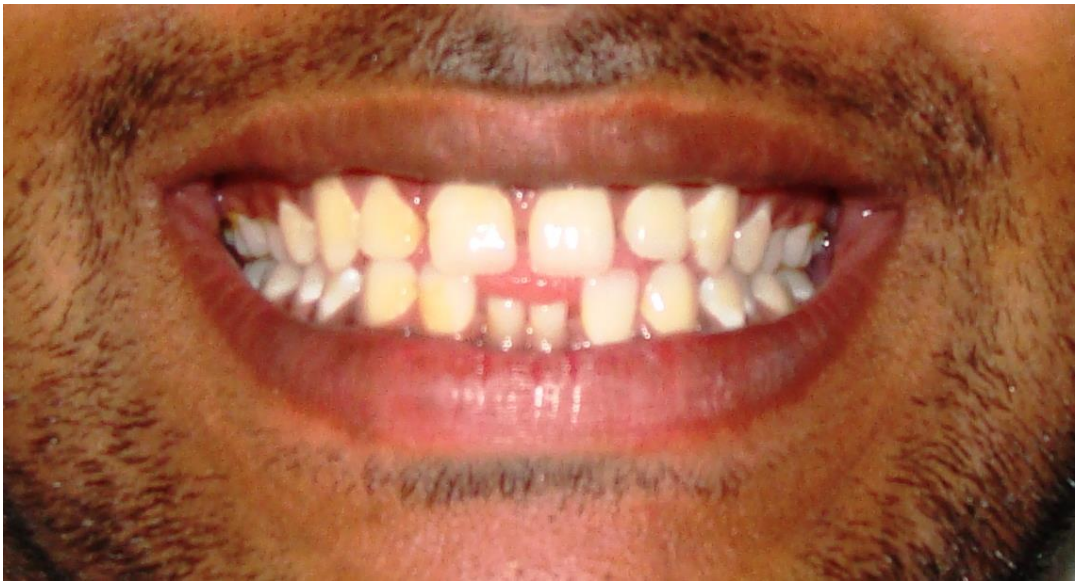

Fig 1. Persistent mandibular central incisors case-1

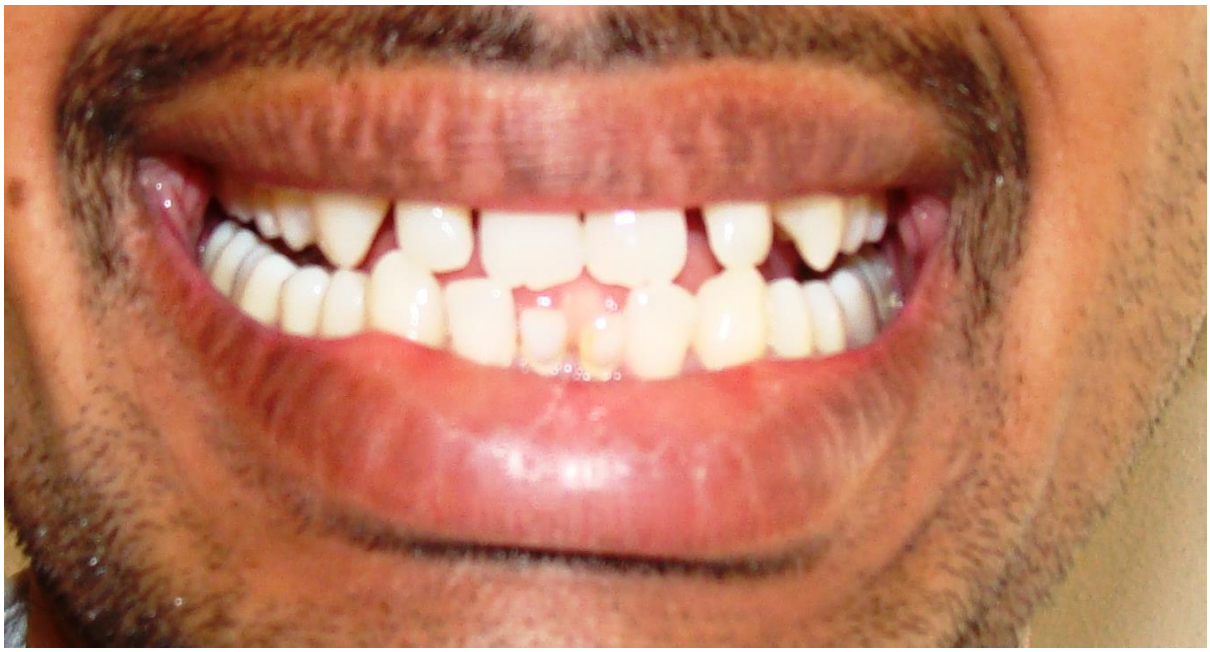

Fig 2. Retained milk tooth of central incisors on mandibular arch case-2.

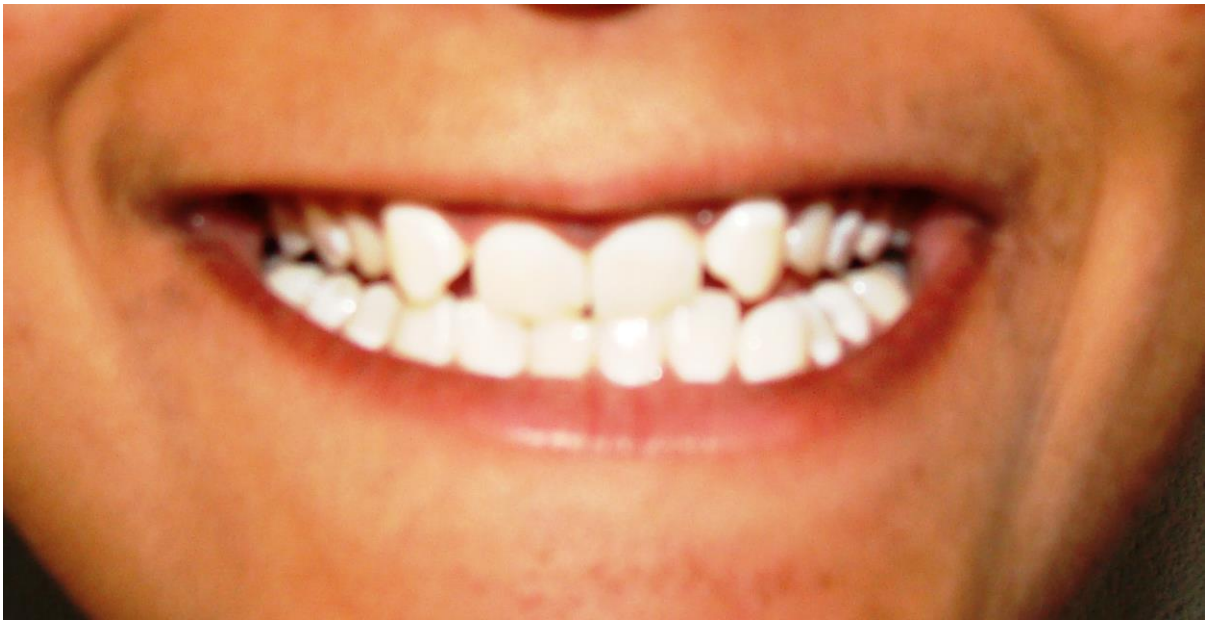

Fig 3. Missing maxillary lateral incisors case-3.

III. RESULTS AND DISCUSSION

2 medical boy students (18 years of age) were found to have persistent mandibular central incisors (fig 1 & fig 2). These were small when compared to other teeth. The primary central incisors on the mandible didn't fall and they became permanent. But the lateral incisors were denuded and were replaced by permanent teeth. On inspection, there were no supernumerary teeth. All the other teeth and gums were normal. The primary dentition of all the other teeth was replaced by permanent teeth including the molars. There was no crowding of teeth or supernumerary teeth. There was no significant cause for persistent primary dentition like genetic or allergy or drug or family history. One student complained of slight difficulty in speech while other student didn't. All the other parameters were normal.

The 3rd case reports a medical girl student (17 years of age) with missing lateral maxillary incisors (fig. 3). On inspection, there was no gap or free socket. The teeth were placed closer and no overlapping was observed. There were no supernumerary teeth. According to Simons etal[2], the most frequently missing permanent teeth are the third molars (20.0%) followed by 2nd premolars (3.4%),and the maxillary lateral incisors (2.2%). But Isfahan stated that the most common congenitally missing anterior tooth is maxillary lateral incisor which coincided with

the case report. There appears to be a multifactorial aetiology to hypodontia, with both genetic and environmental factors playing important roles (Ely /etal.[3]) Hypodontia is thought to involve environmental factors, including infection, e.g. rubella (Gullikson[4]), drugs, such as thalidomide (Speirs[5]), and irradiation (Berland[6]), as well as the developmental relationships between the nerves, maxilla, mandible, oral mucosa, supporting tissues, and hard tissues (Kjær /et al.[7]). Developmental anomalies, endocrine disturbances, and local factors, including pathology, facial trauma, and medical treatment, have been also linked to hypodontia (Werther and Rothenberger[8]). Allergy is considered as a possible predisposing factor for hypodontia[1]. But in this case, there was no significant drug history or infection or allergy or family history related to hypodontia. Hence the cases were diagnosed to have idiopathic aetiology and were reported.

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AUTHORS

First Author – Dr.Ravi Sunder Ragam, Assistant Professor, Department of Physiology, RIMS, Ongole-523001, India., Corresponding Author: ravisunderragam@yahoo.in
Second Author – Dr.Neelima Pilli, Assistant Professor, Department of Anatomy, RIMS, Ongole-523001, India.