

UNILATERAL SUPPLEMENTAL LATERAL INCISOR IN THE MAXILLARY REGION -AN UNCOMMON CASE REPORT

DR ABARNA JAWAHAR M.D.S.

SENIOR LECTURER, DEPARTMENT OF ORAL MEDICINE AND RADIOLOGY, SREE BALAJI DENTAL COLLEGE AND HOSPITAL, BIHER, PALLIKARANAI, CHENNAI – 600100

DR PRIYA DHARSHINI S

POST GRADUATE STUDENT FINAL YEAR, DEPARTMENT OF ORAL MEDICINE AND RADIOLOGY, SREE BALAJI DENTAL COLLEGE AND HOSPITAL, BIHER, PALLIKARANAI, CHENNAI – 600100

DR MARIA PRISCILLA WINCY M.D.S

SENIOR LECTURER, DEPARTMENT OF ORAL MEDICINE AND RADIOLOGY, SREE BALAJI DENTAL COLLEGE AND HOSPITAL, BIHER, PALLIKARANAI, CHENNAI – 600100

RIYA RAJ S K

SAVEETHA MEDICAL COLLEGE, SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES

Abstract: Supplemental and supernumerary teeth are two different terminologies which are commonly used in clinical practice in dentistry. However, supplemental teeth usually refer to the teeth which resembles the morphology of normal teeth whereas supernumerary teeth have an atypical anatomic form. Darwin's theory of evolution states that as humans progressed, organs that were only seldom needed, became vestigial which includes the appendix, tail bone and fourth molar.⁽¹⁾ There are numerous aetiological factors for development of extra teeth, which includes lamina hyperactivity, trauma, phylogenetic theory, atavism, environmental influences, and genetic (heredity) connections.⁽²⁾ Supplemental teeth are frequent in the regular dentition in which men are more affected than women in the ratio of 2:1 According to literature evidence, premolars and molars are the most common supplemental teeth, whereas central and lateral incisors are usually rare. Tomes was the first person to coin the term supplemental teeth.⁽³⁾ The term “superlative” is used as an adjunct for supplemental teeth.⁽⁴⁾ Supplemental teeth usually arise from the lingual region of the accessory teeth bud. Orofacial digital syndrome, cleft lip and palate, chondroectodermal dysplasia occurs in certain patients with extra teeth.⁽⁵⁾ Supplemental teeth are usually rare to find in non-syndromic patients. According to Primosch et al, there are two categories of extra teeth: rudimentary teeth which are smaller in size having atypical shapes such as conical, tuberculate, molariform and supplemental teeth which are extra teeth of a regular size and shape.⁽⁷⁾

INTRODUCTION

A proper history, clinical examination and radiological investigation are essential in the diagnosis of supernumerary and supplemental teeth. It is also important to distinguish supplemental teeth from geminated or fused teeth. Hence, treatment planning in these patients have to be made carefully. Recent modalities such as cone-beam computed tomography (CBCT) can be very helpful as a diagnostic supplement.

There are currently four cases of supplementary lateral incisors recorded in the literature. Supplemental teeth are usually bilateral in presentation, but our case is reported because of its rarity due to unilateral supplemental maxillary lateral incisor in a non-syndromic male.

CASE PRESENTATION:

17-year-old male reported with a complaint of irregularly placed upper and lower front teeth. His past medical history was non-participatory. Intra oral examination revealed he had a total of 28 teeth with one supplemental lateral incisor tooth in the maxillary arch -12 and a retained deciduous in mandibular arch - 63. Crowding was evident in the upper and lower anteriors.



FIG 1 : Supplemental lateral incisor – 12(Palatal view) FIG 2 : Supplemental lateral incisor – 12(Front view)



FIG 3: Intra oral periapical radiograph-12 FIG 4 – Orthopantomogram - 12

Intra oral periapical radiograph of 12 regions revealed a tooth like structure similar in morphology to the natural teeth with complete root configuration and sound periodontium suggestive of supplemental teeth in relation to 12. Orthopantomogram reveals erupting 18,28,38,48 and a toothlike structure similar in morphology in relation to 12 suggestive of supplemental lateral incisor in the maxillary region.

DISCUSSION

The management should be customised based on proper clinical diagnosis because the supplemental lateral incisor is uncommon, tough to distinguish from normal lateral incisor. Even though these teeth may occasionally be unintentionally found later in life if they do not affect the growth or eruption of the permanent neighboring teeth, it is usually required to have an early diagnosis in order to begin treatment and avoid difficulties. In the notion of atavism, the origin of supernumerary teeth was attributed to phylogenetic reversion to extinct primates with three pairs of incisors. According to the dichotomy theory, they arise when the tooth bud splits into two equal or different-sized pieces, producing one normal tooth and one dysmorphic tooth, respectively.⁽⁸⁾ The most commonly recognized theory is the dental lamina hyperactivity theory, which maintains that they originate from the local, autonomous conditioned hyperactivity of the dental lamina.⁽⁹⁾ The coronal invagination and palatal pit of the supplementary tooth may be visible.⁽¹⁰⁾ A guideline to locate and identify extra teeth in two and three dimensions was proposed by Toureno et al.⁽¹¹⁾ This could potentially decrease treatment errors and enhance

communication between healthcare providers. It could be challenging to distinguish between teeth that are supplemental and those that are part of the normal dentition in situations when the management recommends extraction. It makes sense to remove the tooth that is most out of alignment with the arch.⁽¹²⁾

CONCLUSION:

One uncommon developmental aberration is an extra lateral incisor. It is advised to seek early diagnosis and treatment to avoid orthodontic and cosmetic issues. For this reason, a thorough clinical and radiographic examination is necessary in order to arrive at an accurate and logical diagnosis for any given patient. Proper inspection and diagnosis can identify uncommon entities and assist in identifying additional overlooked dental malformations or related illnesses that require suitable treatment. In situations where the extra lateral incisors have developed without any accompanying pathology and are not interfering with function or appearance, routine radiological follow-ups are advised.

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