



Nonsyndromic Multiple Erupted Supernumerary Teeth in a 46-Year Old Female: A Case Report

**Ilochonwu, Nzube A, Braimoh, Omoigberai B*

Department of Preventive Dentistry, Faculty of Dentistry, College of Health Sciences, University of Port Harcourt, P.M.B. 5323 Choba, Rivers State, Nigeria.

***Correspondence:** nzube.ilochonwu@uniport.edu.ng

ABSTRACT

Background: Supernumerary is one of the common dental anomalies and it denotes more than the full complement of teeth in the dental arch. Most times it occurs in association with developmental anomalies and syndromes. Sometimes, it occurs without any developmental anomaly or syndrome. Nonsyndromic supernumeraries are rare and the reported prevalence among Nigerians is less than 1%. It is more commonly reported in males and younger age groups. In 75% of cases they fail to erupt into the mouth, where they erupt, they are commonly seen on the mandibular premolar region. Supernumerary

teeth constitute a health hazard and presents a clinical situation that is challenging to diagnose and treat. It causes crowding, predisposes to caries and periodontal diseases and interfere with mastication, speech and esthetics.

Case report: This paper reports a rarer case of non-syndromic bilateral mandibular supernumerary teeth in a systemically healthy 46-year old woman.

Key words: Female, Panoramic radiograph, Supernumerary tooth, Syndrome, Tooth eruption

INTRODUCTION

Dental practitioners are often confronted with developmental dental anomalies in course of their clinical practice. The dental anomalies of note include abnormalities of size, shape or number of teeth. Supernumerary teeth otherwise known as hyperdontia is an additional tooth, teeth or tooth-like to the full complement of teeth either 20 in the deciduous or 32 in the permanent series.¹ Supernumerary teeth can be classified based on their morphology or location. According to the morphology, they can be classified as conical, tuberculate, supplemental, and odontome. Various forms based on location include mesiodens, paramolars, distomolars, and

parapremolars.² Supernumerary teeth can develop in any area within the dental arch, may be single or multiple, unilateral or bilateral, and seen in one or both the jaws.¹⁻³ They may erupt normally, remain unerupted, partially erupt, appear inverted, or take an abnormal route of eruption.¹⁻³

Supernumerary involving one or two teeth show a predilection for the anterior maxillary region, this is followed by the mandibular premolar region. Multiple supernumeraries (more than five) are most commonly seen in the mandibular premolar region.²⁻⁴ The presence of one or two supernumerary teeth is quite common when compared with the hyperdontia involving





multiple teeth. Multiple supernumerary teeth are usually associated with syndromes such as Gardner's syndrome, cleft lip and palate and cleidocranial dysostosis.³⁻⁵

Supernumerary tooth may be visible in the oral cavity, or may be discovered by chance on a routine radiograph or as a cause of an impacted permanent tooth.^{6,7} Erupted or impacted supernumerary teeth may remain in position for years without causing any disturbances and clinical manifestations. However, in some cases, they may create various clinical problems such as crowding, dental caries, periodontal disease, delayed eruption, diastema, rotations, cystic lesions, and resorption of adjacent teeth.⁸ Therefore, early detection and institution of treatment for supernumerary with clinical complexity is imperative. It is important to diagnose correctly such conditions and institute treatment at the appropriate time.⁸

CASE REPORT

A 46-year-old female patient presented to the Department of Preventive Dentistry with a 3-day history of pain on the lower right quadrant which was insidious in onset and difficulty in maintaining oral hygiene. Medical and family history was non-contributory. On intraoral examination, the oral hygiene was fair with simplified oral hygiene index score of 1.4 and there was localized marginal gingivitis on the lower right posterior mandibular region with plaque accumulation. The standing teeth in all the quadrants were 1-8 and there was crowding in the mandibular posterior quadrants. Clinical examination revealed the presence of two supernumerary teeth on the right and one on the left quadrant of the mandible. The supernumerary were

supplemental resembling the premolars and were related to the second premolar, first and second molar on the right and to the second molar on the left (Figure 1a and b). Further examination confirmed the presence of a distomolar on the maxillary right quadrant (Figure 2). Periapical radiograph did not show anything remarkable.

Treatment plan was discussed with the patient after explaining the consequences of supernumerary teeth. The patient was advised for the extraction of the supernumerary teeth, due to the development of stagnation areas around the supernumerary teeth with restricted self-cleansing of the affected areas. Since the pain was not severe, she was not readily willing for the extraction. However, scaling and polishing was done, oral hygiene instructions given and the patient scheduled for review in one week. On the recall visit, the patient was found to be compliant with the oral hygiene instructions and there was no complaint. Instructions to maintain optimal oral hygiene were emphasized and patient was given appointment for recall visit in six months. Orthopantomogram taken at the recall visit did not show any evidence of periapical pathology and confirmed absence of any unerupted supernumerary teeth (Figure 3). However, the patient is under observation to ensure no development of periodontal pathology of the affected teeth.



Figure 1a
Intraoral clinical photograph showing the right and left mandibular supernumerary teeth



Figure 1b



Figure 2. Intraoral clinical photograph showing the right maxillary distomolar



Figure 3. Orthopantomogram showing no evidence of apical pathology and confirming absence of unerupted supernumerary

DISCUSSION

Number of theories have been postulated to explain the etiology of supernumerary teeth, these include the dental lamina hyperactivity theory, dichotomy theory and atavism theory as well as genetic and environmental factors. However, the most acceptable theory is the dental lamina hyperactivity theory.⁹ Though the occurrence of multiple supernumerary teeth is rare,⁷ it is however not uncommon to see multiple supernumerary teeth in individuals with syndromes or other developmental anomalies.

The occurrence of multiple erupted supernumerary teeth in a systemically healthy 46-year old female with no contributory family history of supernumerary teeth and none of the teeth indicated for extraction is of interest necessitating this case report. Some of the clinical problems associated with supernumerary teeth include crowding, dental caries, gingivitis, periodontitis, delayed eruption, diastema, rotations, cystic lesions, and resorption of adjacent teeth.⁸ The case under review presented with localized inflammation of the gingiva on the right posterior mandibular region due to crowding and plaque accumulation resulting from the erupted supernumerary teeth. The inflammation resolved following scaling and polishing and oral hygiene instructions. Therefore, there is need for the periodic review and improved oral self-care to forestall the development of periodontal pathology.

Supernumerary teeth are commonly seen among younger age groups^{10,11} with a male preponderance.^{1,7,12} Mali et al. reported five cases of supernumerary teeth without any associated syndrome or developmental



anomaly; all the five cases reported were males and only one case was above 40 years old, the others were between 35 and 20 years.² The younger age of presentation may be due to the complications necessitating early access and intervention.

Syndromic supernumerary teeth occur in the maxillary anterior region most frequently, followed by the maxillary posterior region and then the mandibular premolar region.^{3,13} The nonsyndromic supernumerary teeth unlike the syndromic supernumerary teeth are mainly located within the mandibular premolar region, followed by the molar and anterior regions respectively.^{3,4,13,14} This is consistent with the case under review; there are three supernumerary teeth in the mandibular posterior region. The retention of these teeth would be attributed to the non-interference with esthetics, occlusion and absence of symptoms.

Supernumerary teeth have been reported among family members indicating hereditary or genetic influence.^{14,15} However, in the present case, there was no hereditary or genetic predisposition indicated by family history which was non-contributory. Therefore, the dental lamina hyperactivity theory which suggests that supernumerary teeth may develop from the over-proliferation and prolonged survival of the dental lamina epithelial cells^{2,10} may have played a role in the supernumerary teeth seen in this case.

CONCLUSION

Supernumerary teeth may pose difficulty in maintaining the oral hygiene, cause pain, resorb roots of adjacent teeth and involved in cyst formation. Therefore, early diagnosis,

proper evaluation, and appropriate treatment are essential. Supernumerary teeth should be maintained and retained where they do not interfere with esthetic, speech, mastication and are asymptomatic. However, continuous monitoring and observation is important to prevent complications and complexities in further dental management.

Acknowledgment

We sincerely thank the patient for the consent to report this case and Dr Emma Chukwuma for graciously taking the OPG on our behalf.

REFERENCES

1. Yusof WZ. Non-syndrome multiple supernumerary teeth. Literature review. *J Can Dent Assoc* 1990; 56(2):147-9.
2. Garvey MT, Barry HJ, Blake M. Supernumerary teeth--an overview of classification, diagnosis and management. *J Can Dent Assoc* 1999; 65(11):612-6.
3. Mali S, Karjodkar FR, Sontakke S, Sansare K. Supernumerary teeth in non-syndromic patients. *Imaging Sci Dent* 2012; 42(1):41-5.
4. Yagüe-García J, Berini-Aytés L, Gay-Escoda C. Multiple supernumerary teeth not associated with complex syndromes: A retrospective study. *Med Oral Patol Oral Cir Bucal* 2009; 14(7): E331-6.
5. Shah AK, Joshi MU. Nonsyndromic multiple supernumerary premolars: Report of three cases. *Health Agenda* 2013; 1(3):85-9.
6. Anegundi RT, Tegginmani VS, Battepati P, Tavarger A, Patil S, Trasad V, *et al.* Prevalence and characteristics of



- supernumerary teeth in a non-syndromic South Indian pediatric population. *J Indian Soc Pedod Prev Dent* 2014; 32(1):9-12.
7. Açikgöz A, Açikgöz G, Tunga U, Otan F. Characteristics and prevalence of non-syndromic multiple supernumerary teeth: a retrospective study. *Dentomaxillofac Radiol* 2006; 35(3):185-90.
 8. Hattab FN, Yassin OM, Rawashdeh MA. Supernumerary teeth: Report of three cases and review of the literature. *ASDC J Dent Child* 1994; 61(5-6):382-93.
 9. Yassin OM, Hamori E. Characteristics, clinical features and treatment of supernumerary teeth. *J Clin Pediatr Dent* 2009; 33(3):247-50.
 10. Diaz A, Orozco J, Fonseca M. Multiple hyperodontia: Report of a case with 17 supernumerary teeth with non-syndromic association. *Med Oral Patol Oral Cir Bucal* 2009; 14(5):E229-31.
 11. Gallas MM, Garcia A. Retention of permanent incisors by mesiodens: A family affair. *Br Dent J* 2000; 188(2):63-4.
 12. Umweni AA, Osunbor GE. Non-syndromic multiple supernumerary teeth in Nigerians. *Odontostomatol Trop* 2002; 25(99):43-8.
 13. Golan I, Baumert U, Hrala BP, Mu'big D. Early craniofacial signs of cleidocranial dysplasia. *Int J Paediatr Dent* 2004; 14(1):49-53.
 14. Ng'ang'a PM, Guthua SW, Ng'ang'a RN. Multiple supernumerary teeth in association with malocclusion: report of two cases. *East Afr Med J* 2002; 79(4):221-3.
 15. Inchingolo F, Tatullo M, Abenavoli FM, Marrelli M, Inchingolo AD, Gentile M, *et al.* Non-syndromic multiple supernumerary teeth in a family unit with a normal karyotype: case report. *Int J Med Sci* 2010; 7(6):378-84.