

Multiple Non-Syndromic Hyperdontia- Report of an Unusual Case

Subash Chandra Raj,¹ Hema Malini Rath,² Jyotsna Mishra,³ Ashish Kumar Barik⁴

ABOUT THE AUTHORS

1. Dr. Subash Chandra Raj, MDS

Asst. Professor,
Department of Dental
Surgery,
M.K.C.G. Medical College &
Hospital, Berhampur,

2. Dr. Hema Malini Rath

Assistant Professor
S.C.B Dental College
E-mail:
hema_hr@rediffmail.com

3. Dr. Jyotsna Mishra

Department of Dental
surgery,
M.K.C.G. Medical College, &
Hospital,
E-mail:
drjyotsnamishra@gmail.com

4. Dr. Ashish Kumar Barik

Reader
Department Of
Orthodontics,
Institute Of Dental
Sciences, Soa University
drashishbarik@yahoo.co.in

Corresponding Author:

Dr. Subash Chandra Raj, MDS

Asst. Professor, Department of
Dental Surgery,
M.K.C.G. Medical College &
Hospital, Berhampur
Dist: Ganjam, Odisha,
PIN-760004.
E-mail :
drsubash99@rediffmail.com
Mobile No. 91- 9437008298.

Abstract

The aims and objectives are to report a case of multiple supernumerary premolars and molars, an unusual anomaly in a non-syndromic patient. This article reports a case of 28 years old patient with non-syndromic supernumerary premolars and molars. The patient had 6 supernumerary premolars, 2 distomolars, and maximum number of supernumerary premolars in the maxilla making this case very unusual. The detection of multiple supernumerary teeth is usually a coincidental finding, often detected on radiographs. This case report lays stress upon the role of early detection, radiographic examination and frequent evaluation to detect any complications which may be associated with supernumerary teeth.

KEYWORDS: Hyperdontia, supplemental, non-syndromic, premolars, molars

Introduction

Hyperdontia is an odontostomatologic anomaly characterized by an excess in tooth number, both erupted and unerupted (1). Hyperdontia is often occasional and it seems to occur more often in patients with hereditary factors concerning this anomaly (2). Hyperdontia is considered to be multiple when there are one or more supernumerary teeth in two or more dental groups (3). Such hyperdontia is often associated with Gardner's syndrome, cleidocranial dysplasia, Fabry-Anderson Syndrome, Ehler Danlos Syndrome, Down's Syndrome, Crouzon's Disease, Hallermann Streiff Syndrome, Orodigito Facial Dystosis (3,4,5). Non-syndromic, multiple supernumerary teeth (>5) are very rare with an incidence of less than 1% (4,6). Although non syndromic multiple supernumerary teeth are commonly associated with premolars, and anterior sector (6,7) yet the incidence is reported at 0.14% (8). We report here an unusual case report where 8 supernumerary teeth (6 premolars and 2 molars) were discovered on routine radiographic evaluation of a male non-syndromic patient. In this case most of these were present in the maxilla.

CASE REPORT

A 28 year old patient presented to the department of Dental Surgery, MKCG Medical College and Hospital, Berhampur with the chief complaint of pain in lower right back teeth for last two days. Familial and medical history was non contributory. Extra oral examination did not reveal any abnormality. On intraoral examination periocoronal flap was present in relation to 48(FDI notation) with food impaction. Thorough examination of oral cavity revealed 3 supernumerary premolars, two in lower arch (Fig-1) and one in upper arch (Fig-2). Intra oral periapical radiograph revealed fully formed roots of the three supernumerary premolars (Fig 3,4,5). A follow up orthopantomograph (OPG) was then done to rule out presence of other supernumerary teeth elsewhere in the jaws. Five supernumerary teeth were observed from the OPG (Fig-6). Two supernumerary molars observed distal to 28 and 48 (FDI Notation). Three distinct, separate calcified structure resembling maxillary premolars



Fig 1. LOWER ARCH SHOWING TWO SUPERNUMERARY PREMOLARS



Fig 2. UPPER ARCH SHOWING ONE SUPERNUMERARY PREMOLAR



Fig 3. UPPER IOPA X-RAY SHOWING SUPERNUMERARY PREMOLAR



Fig 4. LEFT LOWER IOPA X-RAY SHOWING SUPERNUMERARY PREMOLAR



Fig 5. RIGHT LOWER IOPA X-RAY SHOWING SUPERNUMERARY PREMOLAR



Fig 6. OPG SHOWING SIX SUPERNUMERARY PREMOLARS AND TWO DISTOMOLARS

were observed. These premolars were observed to be lying in their respective dental sacs. Two were present on the left side of the maxillary arch and one on the right side. A general physician was consulted who confirmed that there was no associated syndrome. The patient had no complaint about the three erupted supernumerary premolars. Routine antibiotics, analgesic & mouthwash advised for the pericoronitis. The patient was educated about the radiographic findings and adequately counseled. A decision was made to wait and watch.

DISCUSSION

There are very few published cases of multiple supernumerary teeth not associated to complex syndromes. Different studies have reported a prevalence of supernumerary teeth in the permanent dentition of between 0.15% and 3.8% (6,9). Supernumerary teeth are single teeth in 76-86% of cases, while two supernumerary teeth are found in 12-23% of cases and three or more such teeth in the same individual are only found in 2-8% of cases (4). However according to Rajab and Hamdan this percentage is less than 1% when hyperdontia comprises 5 or more supernumerary teeth. Despite rarity of such cases the present case comprises eight supernumerary teeth among which six are premolars and two are molars. This combination of 6 premolar & 2 molars make this case rarest of rare.

There are various theories regarding the origin of supernumerary teeth- unknown etiology, continued budding of Dental lamina, proliferation of the remains of dental lamina, dichotomy, atavism, genetics and a combination of genetics and environmental factors(8,10) Such teeth can erupt normally, remain impacted, inverted, reach heterotopic position or show abnormal eruptive patterns. Most supernumerary teeth occur in the jaws and their occurrence in gingiva, soft palate, nasal cavity, maxillary sinus, sphenomaxillary fissure, ophthalmic conchae, maxillary tuberosity, incisive suture and between the orbit and the brain also known. A vast majority of the supernumerary teeth occur in maxilla and in the order of prevalence are the mesiodens, lingual to maxillary laterals, distomolars, paramolars and bicuspid (11).

The male female ratio in the permanent dentition is 2:1. Yusof has found a male female ratio of 9:2 among 11 patients who had non-syndromic multiple supernumerary teeth(7).

The development of supernumerary teeth can give rise to a broad range of complications such as malalignment of teeth, functional impairment and an unaesthetic appearance. Disturbance with eruption may also be encountered such as failure of a teeth to erupt, delayed eruption and ectopic eruption. Clinical cases of displacement, diastema, dilacerations, pathological fractures, conrescence, loss of pulp vitality (6), cyst formation, root resorption, increased follicular space(12)

An unexpected finding in the documented case is that the full complement of permanent dentition was present in normal occlusion, with none of the associated potential problems. The patient was

completely asymptomatic and the presence of 8 supernumerary teeth was an incidental finding.

Treatment planning depends upon the type or position of the supernumerary teeth and proximity to adjacent teeth/important anatomical structures. Usually supernumerary teeth are removed surgically, often due to retention of permanent teeth in the region. In cases where the supernumerary teeth do not cause alterations in the eruption, position or integrity of the permanent dentition, a conservative approach is preferred. Each case must be therefore considered individually concerning its treatment taking into account untoward developments like malocclusion, retention of permanent teeth or tendency for cyst formation etc. Close observation with regular radiographic controls is recommended.

CONCLUSION

Multiple hyperdontia is not associated to complex syndromes. The condition is infrequent and is normally asymptomatic. The diagnosis is usually established as a result of a casual finding when performing routine panoramic X-Ray studies. Presence of six supernumerary premolars and two distomolars makes this case very unusual and rare.

REFERENCES

1. Francesco Inchingolo, Marco Tatullo Fabio M. Abenavoli, Massimo Marrelli, Alessio D Inchingolo. Nonsyndromic Multiple Supernumerary Teeth In A Family Unit With A Normal Karyotype: Case Report. *International Journal Of Medical Sciences* 2010;7(6):378-384.
2. Mason C. Rule DC. Midline Supernumeraries: A Family Affair. *Dent Update* 1995;22(1):34-5
3. Desai RS, Shah NP, Multiple Supernumerary Teeth In Two Brothers: A Case Report. *J Oral Pathol Med* 1998;27:411-3
4. Rajab LD, Hamdan AM. Supernumerary Teeth: Review Of The Literature And Survey Of 152 Cases. *Int J Pediatric Dent*. 2002;12:244-54
5. Macnamara CM, O'Riordan BC, Blake M, Sandy JR. Cleidocranial Dysplasia Radiological Appearances On Dental Panoramic Radiography. *Dentomaxillofac Radiol*. 1999;28:89-97
6. Acikgoz A, Acikgoz G, Tunga U, Otan F. Characteristic & Prevalence Of Non-Syndromic Multiple Supernumerary Teeth: A Retrospective Study. *Dentomaxillofac Radiol* 2006;35:185-190
7. Yusof WZ, Nonsyndromal Multiple Supernumerary Teeth: Literature Review. *J Can Dent Assoc*. 1990;56:147-9
8. King NM, Lee AMP, Wan PKC. Multiple Supernumerary Premolars: Their Occurrence In Three Patients. *Aust Dent J* 1993;38:11-16
9. Salcido Garcia J, Ledesma Montes C, Hernandez Flores F, Perez D, Garces Ortiz M. Frequency Of Supernumerary Teeth In Mexican Population. *Med Oral Pathol Or Cir Buccal*. 2004;9:403-9.

10. Urvashi Sharma, Namrata C.Gill. Multiple Non-Syndromic Supplemental Premolars-A Case Report .Int Journal Of Contemporary Dentistry 2010;1(3): 29-31
11. Luten JR. The Prevalence Of Supernumerary Teeth In Primary & Mixed Dentitions. J Dent Child 1967;34:346-353
12. Castro AR, Lopes MCA, Gilberto OJ, Kaminagakura Estela, Multiple Supernumerary Teeth In Non-Syndromic Patients. Report Of 5 Clinical Cases. Braz J Oral Sci 2007;6(22): 1415-1419