



## Unerupted Supplemental Premolars in Multiple Quadrants – A Non-Syndromic Presentation in a Libyan Patient

[PP: 10-13]

**Karthikeyan Ramalingam**

Department of Oral Pathology & Microbiology  
Faculty of dentistry, Sebha University, Sebha  
**Libya**  
[drkn79@gmail.com](mailto:drkn79@gmail.com)

**Sumangali Anandaraju**

Department of Endodontics  
Faculty of dentistry, Sebha University  
Sebha, **Libya**  
[sumiadr@yahoo.in](mailto:sumiadr@yahoo.in)

**Khaled Awidat**

Department of Orthodontics, Faculty of dentistry,  
Sebha University,  
Sebha, **Libya**  
[awidat@hotmail.com](mailto:awidat@hotmail.com)

**Omar Basheer**

Department of Oral and Maxillofacial Surgery  
Faculty of dentistry, Sebha University  
Sebha, **Libya**  
[omar73den@yahoo.com](mailto:omar73den@yahoo.com)

### ARTICLE INFO ABSTRACT

The paper received on:  
**10/11/2015**  
Accepted after review on:  
**29/12/2015**  
Published on:  
**30/12/2015**

Multiple supernumerary teeth are frequently reported in mandibular premolar region. Supernumerary teeth in multiple quadrants is rarely reported. We report the rare occurrence of non-syndromic, unerupted, supplemental premolars in maxilla and mandible of a Libyan female patient.

**Keywords:** *supplemental premolars, unerupted, non-syndromic, multiple quadrants, Libyan, female*

#### Cite this article as:

Ramalingam, K., Anandaraju, S., Awidat, K. & Basheer, O. (2015). Unerupted Supplemental Premolars in Multiple Quadrants – A Non-Syndromic Presentation in a Libyan Patient. *Case Reports in Odontology* 2(2), 10-13. Retrieved from [www.casereportsinodontolog.org](http://www.casereportsinodontolog.org)

### 1. Introduction

Supplemental teeth (ST) are the supernumerary teeth formed in excess than the normal dentition and also closely resemble adjacent teeth<sup>[1]</sup>. ST are frequently reported in mandibular premolar region and its prevalence is between 0.029 to 0.64%.

Literature reports the incidence of multiple ST to be very rare and is less than 1% of all cases. Non-syndromic presentation is seen in only 0.08% of cases<sup>[2]</sup>.

We had already reported non-syndromic supernumerary premolars in a male<sup>[3]</sup> and female<sup>[4]</sup> patient of Libyan origin. In this case report, we present a case of non-syndromic unerupted supplemental



premolars seen bilaterally in the mandible and left maxilla in a female Libyan patient.

## **2. Case Report**

An 18-year old female of Libyan origin reported to the outpatient department in Faculty of Dentistry, Sebha University, Sebha, Libya. She wanted a filling for decayed tooth in the left upper back region.

Her past medical history was non-significant. Past dental history revealed an uneventful extraction of an extra small tooth in right upper back region, a year ago.

Intra-oral examination revealed proximal caries in 25. She did not have any other signs and symptoms. Radiographs were taken in the mandibular and maxillary premolar region. IOPA revealed an unerupted supplemental premolar between the maxillary premolars (Figure 1).

To our surprise, there were unerupted supplemental premolars in the left and right mandibular posterior region (Figure 2, 3). IOPA of the right maxillary premolar region showed divergence between the roots of 14 and 15, which could be the location of the supernumerary tooth that was extracted.

Correlating the history, clinical and radiological examination, the patients was diagnosed with unerupted supplemental premolars in multiple quadrants. She was advised regular follow-up examination to observe any pathological changes in the future.

## **3. Discussion**

Supernumerary premolars account for 8% of all supernumerary teeth and a male predominance. It is more prevalent in mandible than maxilla. Most of them resemble normal premolars in size and shape – the supplemental type <sup>[1]</sup>. We report supplemental premolars bilaterally in the mandible and in the left maxilla occurring in a Libyan female patient.

ST can be partially or fully erupted <sup>[1]</sup>. We had reported an erupted ST earlier <sup>[3]</sup> but the current patient had both erupted and unerupted ST. Her dental history revealed a past extraction of an extra small tooth.

ST can have a variety of clinical presentations ranging from asymptomatic to associated with aggressive odontogenic cysts. Solares et al have reported that ST predominantly lie dormant between the roots of permanent premolars and molars <sup>[5]</sup>. Similar appearance is seen in our patient and she had no associated symptoms.

ST are also reported to block the eruption of permanent second molars <sup>[1]</sup>, problems with displacement, rotation, ectopic eruption of adjacent teeth and formation of primordial cysts <sup>[6]</sup> or even resorb the roots of adjacent teeth <sup>[1]</sup>. The neighbouring teeth had erupted without any hindrance and there was no evidence of root resorption in our patient.

Only 2% of ST are associated with pathological changes. Many authors have suggested to leave the teeth untreated to avoid the risk of surgical damage <sup>[1,5]</sup>. Radiological evaluation with orthopantomogram (OPG) can be started from 12-14 years of age and repeated at 5-year intervals to facilitate early detection of ST <sup>[2]</sup>. Our patient was advised to retain the unerupted ST and be under regular follow-up.

## **4. Conclusion**

Early diagnosis and an appropriate risk assessment is essential for a favourable prognosis in patients with unerupted supernumerary teeth. We advocate consistent review to evaluate any pathological changes in association with such unerupted teeth.



### References:

1. Gupta V, Kumar P, Kumar P, Lakhani N. Mandibular bilateral unerupted non-obstructing supernumerary premolars as a rare paradental anomaly. *Eur J Gen Dent* 2012; 1:204-6.
2. Kasat VO, Saluja H, Kalburge JV, Kini Y, Nikam A, Laddha R. Multiple bilateral supernumerary mandibular premolars in a non-syndromic patient with associated orthokeratized odontogenic cyst- A case report and review of literature. *Contemp Clin Dent* 2012;3: S248-52.
3. Ramalingam, K., Sethuraman, S., Awidat, K., & Basheer, O. (2014). Multiple Mandibular Supernumerary Supplemental Premolars-A Non-Syndromic Bilateral Presentation in a Female Libyan Patient. *Case Reports in Odontology* 1(2), 06-09. Retrieved from [www.casereportsinodontology.org](http://www.casereportsinodontology.org)
4. Ramalingam K, Awidat K, Basheer O, Jaber AA. Supernumerary premolars and fourth molars – a non-syndromic bilateral presentation in a male Libyan patient. *CIBTech Journal of Surgery*. 2015 Vol. 4 (2) May-August, pp.26-29. Retrieved from <http://www.cibtech.org/cjs.htm>
5. Masih S, Sethi HS, Singh N, Thomas AM. Differential expressions of bilaterally unerupted supernumerary teeth. *J Indian Soc Pedod Prev Dent* 2011; 29:320-2.
6. Hegde SV, Munshi AK. Late development of supernumerary teeth in premolar region: A case report. *Quintessence Int* 1996; 27(7):479-481.

### Figures with Legends:

*Figure 1: IOPA radiograph showing unerupted supplemental premolar in the left maxilla.*



*Figure 2: IOPA radiograph showing unerupted supplemental premolar in the left mandible.*





*Figure 3: IOPA radiograph showing unerupted supplemental premolar in the right mandible.*



*Figure 4: IOPA radiograph showing divergence between the roots of first and second premolar in right maxilla.*

