Non-Syndrome Multiple Supernumerary Teeth: Case Report

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ABSTRACT Teeth in excess of the normal number are referred to as supernumerary teeth. Supernumerary teeth may occur anywhere in either jaw in both dentitions. Supernumerary teeth are classified based on their morphology and location in the dental arch. The supernumerary teeth that occur in the molar area are called paramolar, those that occur distally to the third molar are called distomolar, those that occur between the maxillary anterior central teeth are called mesiodens. Multiple supernumerary teeth are associated with cleidocranial dysplasia and Gardner syndrome but non-syndrome multiple supernumerary cases are very rare. Multiple supernumerary teeth are mostly encountered in mandibular premolar area. In this case report we will present clinical and radiographic manifestations and management of an 22 year old female patient who was referred to Oral Diagnosis and Radiology Department for routine control with 11 supernumerary teeth.

Key Words: Tooth, supernumerary; tooth abnormalities; abnormalities, multiple


Anahtar Kelimeler: Diş, fazla; diş anomalileri; anormalitikler, çoklu

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Supernumerary teeth are the one of the developmental dental abnormalities. They are defined as the extra tooth/teeth that develops in addition to the normal complement of teeth in the primary or permanent dentition in any region of dental arch. The term “supplemental” is sometimes used when the extra teeth have normal morphology.1-5 Supernumerary teeth have been reported in the literature over the years as a well-recognized clinical phenomenon.6-9 Multiple supernumerary teeth are associated with cleidocranial dysplasia and Gardner syndrome.1-10-12 However, it is very
rare to find multiple supernumeraries in individuals with no other associated disease or syndrome. In such cases the maxillary anterior region is the common site of occurrence.

CASE REPORT

An 22 year old Caucasian female patient was referred to Oral Diagnosis and Radiology Department for routine control. The familial, medical and dental histories were non-contributory. General extra-oral examination did not show any significant findings. Intra-oral examination revealed absence of left permanent maxillary canine and a supernumerary premolar tooth in left mandible. Panoramic radiograph revealed 11 supernumerary teeth (ST) with various stages of root development (Figure 1). In the maxilla there were seven supernumerary teeth. For detailed evaluation of supernumerary teeth, 4 periapical radiographs are taken from four quadrants. On the left side there were (one distomolar, two premolar shaped teeth and one supernumerary tooth germ between the canine and first premolar. On the right side there were three premolar shaped teeth) (Figure 2, 3). The left permanent maxillary canine was impacted. In the mandible, four supernumeraries were present: on the right side there was (one distomolar and one premolar teeth and on the left side there were two premolar teeth) (Figure 4, 5).

A general physician was consulted who confirmed there was no associated syndrome. Based on the dental findings and the absence of any associated disorder or syndrome, we decided on a diagnosis of non-syndrome multiple supernumerary teeth.

Because of these supernumerary teeth were asymptomatic, we decided to leave in their place and keep them under observation and has been given information about her disease and our decision.

DISCUSSION

There are some syndromes which associated with supernumerary teeth such as Gardner syndrome and cleidocranial dysplasia. Clinical examination and patient history did not show any other clinical features such as partial or complete absence of clavicles, excessive mobility of shoulders as in cleidocranial dysplasia. It was all compatible with general physician’s evaluation. According to general physician there were no signs such as multiple
enostosis, multiple osteomas, cutaneous sebaceous cysts, subcutaneous fibromas or multiple polyps as in Gardner syndrome.

Teeth in excess of the normal number are referred to as supernumerary teeth (ST). ST may occur anywhere in either jaw in both dentitions. They are most frequently seen in the maxillary anterior and molar regions and more frequently seen in the permanent dentition (Table 1).1,5 Heredity was believed to be an important aetiological factor in the occurrence of ST.3 Multiple supernumerary teeth are usually associated with developmental disorders or syndromes such as cleidocranial dysplasia and Gardner syndrome. Occurrence of multiple supernumerary teeth in the absence of any associated syndrome is rare.14,18 Multiple ST are mostly seen in mandibular premolar area.1,5,8,10,15 In this case we detected 3 premolar shaped supernumerary teeth in mandibular premolar area. The prevalence of ST in the premolar region has been reported as 0.2-10.9%.15 Despite of the prevalence of single supernumeraries occur in 76-86%, the prevalence of five or more ST has been reported less than 1% (Table 2).3,8 In the present case eleven supernumerary teeth found in both jaws.

ST are classified based on their morphology and location in the dental arch. The ST that occur in the molar area are called paramolar, those that occur distally to the third molar are called distomolar.2 In this case, eleven ST were found, nine of them were resembling the premolar teeth and two of them were molar shaped distomolar.

### TABLE 1: Supernumerary teeth location, age and sex correlation.

<table>
<thead>
<tr>
<th>Mandible</th>
<th>Maxillary</th>
<th>Anterior area</th>
<th>Premolar area</th>
<th>Molar area</th>
<th>Total supernumerary teeth</th>
<th>Mean of age</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yague et al10</td>
<td>23.53%</td>
<td>76.47%</td>
<td>35.29%</td>
<td>32.36%</td>
<td>32.35%</td>
<td>34</td>
<td>16.23</td>
</tr>
<tr>
<td>Rajab et al3</td>
<td>5.9%</td>
<td>94.1%</td>
<td>93.1%</td>
<td>6.5%</td>
<td>0.5%</td>
<td>202</td>
<td>10.1</td>
</tr>
<tr>
<td>De Oliveira Gomes et al7</td>
<td>8.7%</td>
<td>91.3%</td>
<td>91.6%</td>
<td>0%</td>
<td>0.4%</td>
<td>460</td>
<td>9.3</td>
</tr>
</tbody>
</table>

### TABLE 2: Rates of prevalence of supernumerary teeth.

<table>
<thead>
<tr>
<th>One supernumerary tooth</th>
<th>Two supernumerary teeth</th>
<th>Three or more supernumerary teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rajab3</td>
<td>77%</td>
<td>18.4%</td>
</tr>
<tr>
<td>Hattab4</td>
<td>76-86%</td>
<td>12.23%</td>
</tr>
<tr>
<td>Şerme17</td>
<td>94.33%</td>
<td>3.77%</td>
</tr>
</tbody>
</table>
ST are usually impacted and sometimes in inverted position. Ten of the 11 supernumeraries in our case were impacted and all the suplemental teeth were oriented normally.

Approximately 75% of supernumerary teeth are impacted and asymptomatic, and most of these teeth are diagnosed coincidentally during radiographic examination. Panoramic radiographs give us precious review about supernumerary teeth. In addition to panoramic radiography, occlusal radiographs may be a choice in determining location and number of unerupted supernumerary teeth. Conventional radiographic techniques are useful enough unless in the presence of large cystic formation.

It has been stated that development of supernumerary teeth may cause various pathoses such as delayed eruption and displacement of permanent teeth. These were also seen in our case. If they cause delay, non-eruption or displacement of permanent teeth, root resorption of adjacent teeth due to the pressure and cystic formations, then extraction is recommended.

As observed in the literature, delayed of eruption, orthodontic problems and displacement of permanent teeth were seen supernumerary teeth cases. The current literature supports removal of unerupted supernumerary teeth because the most common complications are cyst formation (9%) and damage the neighbouring teeth (14%).

REFERENCES