ABSTRACT

Introduce: Supernumerary Teeth of an difference in the form of increasing the amount of gear teeth of the normal amount more than twenty in the decidui dentition or thirty two in the permanent dentition. Objective: The objectives of the present study were to investigate the prevalence and characteristics of supernumerary teeth for children of 13-15 years old in Makassar. Methods: A descriptive study including prevalence and characteristics of supernumerary teeth for children of 13-15 years old who they present in diagnostic to fourteen Junior High School Student in Makassar. A cross-sectional study with by using multistage random sampling method. Results: The research result appears that 24 supernumerary teeth, which yields a prevalence of 0.6%. The prevalence among male was higher than among female, (M:F of 2:1:1). The greatest proportion of supernumerary teeth was found in the maxillary anterior region. Of these, single supernumerary teeth was seen in 90.9% and Multiple Supernumerary is 9.1%. Prevalence characteristics sample based on their site of supernumerary teeth with mesiodens (58.3%), lateral incisor (41.7%). Of the 24 supernumerary teeth, 93.8% erupted and 4.2% partial erupted. Prevalence characteristics sample based on their morphology, conical (83.4%), tubercular (8.3%), supplementale (8.3%). Conclusion: The prevalence of supernumerary teeth for children of 13-15 years old in Makassar was found to be 0.6% with incidence in supernumerary teeth is higher among male (ratio M:F of 2:1:1) they are most frequently located in the maxilla. Most cases presented only single supernumerary (90.9%) and in multiple cases, the mesiodens region is predominant. The conical shape is the commonest morphology (83.4%).

ABSTRAK

berdasarkan lokasi adanya supernumerary teeth dengan jenis mesiodens 58,3% dan jenis lateral 41,7%. Dari 24 supernumerary teeth, 93,8% yang erupsi sempurna dan partial erupsi 4,2%. Prevalensi karakteristik sampel berdasarkan keadaan morfologi, bentuk morfologi conical 83,4 %, tubercular 8,3% dan supplementale 8,3%. Simpulan: Prevalensi supernumerary teeth pada anak usia 13-15 tahun di Makassar sebanyak 0,6% dengan supernumerary teeth lebih banyak pada laki-laki (rasio L:P yaitu 2,1:1) semua terdapat pada maksilla. Kebanyakan kasus ditemukan Single Supernumerary Teeth (90,9%) dan pada beberapa kasus merupakan mesiodens. Bentuk morfologi conical paling banyak (83,4%).

Key words: Supernumerary Teeth, the children of 13-15 years old.

INTRODUCTION

In the world of dentistry is often found abnormalities of the teeth in the oral. Abnormalities of the teeth due to the growth disorder that will affect the structure of the teeth in the oral, not all of these disorders result in diversity of forms on the teeth and bones. Abnormalities in the growth process are often called anomalies. One of many such disorders is the presence of supernumerary teeth or teeth that exceeds the amount of the normal amount.

Supernumerary teeth or teeth be an abnormality in the form of increasing the amount of gear teeth of the normal amount and can be found in all parts of the dental arch. Etiologically, the occurrence of supernumerary teeth has not been yet completely determined. In attempts to explain the condition several theories have been proposed including the phylogenetic theory, the dichotomy theory (splitting of the tooth germ), the hyperactivity theory (hyperactive dental lamina), the teeth have cleavage on the stage of bud stage, and because of the combined effects of genetics and environment as a tendency presence of supernumerary teeth. (1,2)

The prevalence of supernumerary teeth in permanent teeth has been done in several studies varies from 0.45% to 4.5%. In Ireland the level varies between 2.2% and 3, 7%. The occurrence supernumerary teeth is 0.2% -3.5% and is more often found in the permanent teeth of the deciduous teeth. Frequency occurred over the period of tooth primary teeth was 0.06% -0.8 %.(1,3)

Research conducted by JK Dash Supernumerary Teeth study in India showed prevalence of 0.65% and Nasgari mahaboob research conducted in South India, showed 1.2% prevalence of supernumerary teeth. 4
Research conducted Sharma and Singh showed that the supernumerary teeth are detected by clinical and radiographic examination. On the male are more affected than females with sex ratio of 2.9:1. Single supernumerary teeth (single supernumerary) seen in 79% of patients, 20% for two supernumerary and 1% had three or more supernumerary teeth (multiple supernumerary).

Supernumerary teeth are more common in the maxilla than the mandible. Supernumerary teeth can be categorized in terms of chronology, topography, and morphology. Chronologically, they can develop before deciduous teeth (predeciduous), simultaneous to permanent teeth or after them (postpermanent dentition). Based on the morphology, supernumerary teeth can be defined as supplemental (eumorphic) or rudimentary (including conic shape, tuberculate, molariform, and odontome). Mesiodens, paramolar, distomolar, and parapremolar, are words to describe the topography (location) of the supernumeraries.

Supernumerary teeth may occur in some regions in the region between the jaws for example, on the upper incisor region, also called mesiodens. Mesiodens supernumerary teeth are located on and adjacent to the anterior maxillary suture and the mid-line between the maxillary incisors. In addition there are usually mesiodens supernumerary molar teeth adjacent paramolar also called, at the very back of the last molar tooth called disto-molars or premolars next called parapremolars.

The purpose of this study was to obtain an overview of the prevalence and characteristics of supernumerary teeth in children aged 13-15 years in Makassar. With the prevalence of supernumerary teeth as well as the major impact on the location of the permanent teeth and the aesthetic, it is necessary to immediately think of preventive measures as early as possible.

**MATERIALS AND METHODS**

The study design was a descriptive observational study. The study population used is all students enrolled in Junior High School (SMP) which have been set. Based on the calculations, the number of samples of 3938 students. The sampling method used was Multistage Random Sampling.

Data obtained by direct examination of the oral using the sonde and mirror to see whether or supernumerary teeth and doing interviews in each sample that had supernumerary teeth.
RESULTS

This study was conducted on 3938 students with 24 supernumerary teeth were examined.

Figure 1: Gender of patients with supernumerary teeth

Figure 2: Number of supernumerary teeth per patient

Figure 3: The site of the supernumerary teeth
The prevalence of supernumerary Teeth in children at the age of 13, 14 and 15 years in Makassar from 3938 examined samples found a supernumerary Teeth anomalies were 22 samples (0.6%) and there was no anomaly as 3916 samples (99.4%).

**Figure 1**, the prevalence of supernumerary Teeth by sex. The prevalence of supernumerary Teeth anomalies more males are 15 people (0.8%) while 7 women (0.4%).

**Figure 2**, the prevalence of supernumerary Teeth based on any number of people, found Single Supernumerary Teeth as many as 20 people (90.9%), while the prevalence of samples with multiple supernumerary by 2 people (9.1%).

**Figure 3**, the prevalence of the characteristics of the sample based on the location of the supernumerary Teeth are arriving on location mesiodens total of 14 samples (58.3%), the
lateral location of as many as 10 samples (41.7%). The locations of premolars, paramolar and no distomolar.

**Figure 4**, the prevalence of supernumerary characteristics based on status Teeth eruption. Available Teeth supernumerary 23 (93.8%) were perfect eruption and supernumerary Teeth only 1 (4.2%) were partial eruption.

**Figure 5**, the prevalence of morphological characteristics of the sample based on 24 samples obtained *supernumerary Teeth* conical morphology of 20 samples (83.4%), a form tubercular morphology by 2 samples (8.3%), morphology supplemental by 2 samples (8.3%) and no morphological forms odontoma.

**DISCUSSION**

Results of tests carried out on children aged 13, 14 and 15 years in Makassar from 3938 examined samples obtained 22 samples (0.6%) who had a supernumerary Teeth anomalies which are all located in the maxilla. These results are consistent with research Szkaradkiewics Anna (2011) which shows the prevalence of supernumerary teeth in the permanent dentition period varies between 0.1% and 6.9%. In accordance with the results of Celal Candirli (2012) states that the supernumerary teeth by 90-8%% in the maxilla. In the supernumerary Teeth prevalence by sex. The prevalence of supernumerary Teeth anomalies more males are 15 people (0.8%) while 7 women (0.4%). These results are consistent with research Amita Sharma (2011), Sharman and Singh (2012), O.Dowling (2009) showed that the supernumerary teeth are detected by clinical examination in male more than female. This is similar to the results of research Celikoglu M (2012) showed that the supernumerary teeth were detected in 42 samples with a ratio of 1.8: 1 and the research Dara Kalyan Kumar, the sex ratio of the supernumerary teeth (the M/F ratio) seemed to be 2: 1 were also showed higher prevalence in male than in females, may be due to the association of teh supernumerary teeth with the autosomal recessive gene, which has a greater penetration in males, as was suggested by Niswander. Research of Schmuckli Rule (2010) In the study the prevalence among male is higher than girls at 1.1% and 0.4% respectively. 

The prevalence of supernumerary Teeth based on any number of people, found Single Supernumerary Teeth as many as 20 people (90.9%), while the prevalence of samples with multiple supernumerary by 2 people (9.1%). This is according to the results of research from
Sharman and Singh (2012) which states that the prevalence of supernumerary teeth are at most only one or single (single supernumerary) supernumerary teeth per person is 79%, while the prevalence of samples with two supernumerary teeth are 20% and 1% had three or more supernumerary teeth (multiple supernumerary). This is similar to the results of research Celikoglu M. Et al showed that the prevalence of supernumerary teeth are at most only one or single (single supernumerary), supernumerary teeth per person is 75% while the prevalence of samples with two supernumerary teeth is 25\%\textsuperscript{1,5}.

Prevalence of characteristics of the sample based on the location of the supernumerary Teeth are arriving on location mesiodens many as 14 samples (58.3%), the lateral location of as many as 10 samples (41.7%). The locations of premolars, paramolar and no distomolar. This is similar to the results of research Mevlut Celikoglu (2010) which shows the type of supernumerary teeth mesiodens is 31.3% more than the 22.9% lateral types. Research O. Dowling (2009) based on the records of 100 consecutive patients with supernumerary teeth in permanent teeth that attending in public health orthodontic clinic examined showed approximately 83% of the supernumerary teeth, teeth found in maxillary anterior region.\textsuperscript{6,11}

At research of Schmuckli Rule (2010) The prevalence among boys is higher than among women, with 1.1% and 0.4%, respectively, the largest proportion of supernumerary teeth found maxillary anterior region (38 out of 44 teeth, 86\%). \textsuperscript{9}

The prevalence of supernumerary characteristics based on status Teeth eruption. It’s founded that Teeth supernumerary 23 (93.8\%) were perfect eruption and supernumerary Teeth only 1 (4.2\%) were partial eruption.

The prevalence of morphological characteristics of the sample based on 24 samples obtained supernumerary Teeth conical morphology of 20 samples (83.4\%), a form tubercular morphology by 2 samples (8.3\%), morphology suplementale by 2 samples (8.3\%) and morphology odontoma no. This is in accordance with Rule Schmuckli study (2010) that indicates the type of morphology 70% supernumerary teeth conical (cone), 25\% and 5\% supplemental tuberculation). \textsuperscript{7}

Based on the prevalence and characteristics of supernumerary teeth in children aged 13-15 years is 0.6\% in Makassar needed the socialization of supernumerary teeth and an understanding of the characteristics and the most important is the further handling.
CONCLUSION

Results of research that has been conducted at 14 Junior High School (SMP) in Makassar can be summarized as follows:

1. Generally, the prevalence of supernumerary Teeth in children at the age of 13, 14 and 15 years in Makassar from 3938 examined samples found a supernumerary Teeth anomalies were 22 samples (0.6%) all found on the maxillary.
2. The prevalence of supernumerary teeth by sex. The prevalence of supernumerary Teeth anomalies more males are 15 people (0.8%) while 7 women (0.4%).
3. The prevalence of supernumerary teeth based on the number of each person, found Single Supernumerary Teeth as many as 20 people (90.9%), while the prevalence of samples with multiple supernumerary by 2 people (9.1%).
4. Prevalence of characteristics of the sample based on the location of the supernumerary Teeth are arriving on location mesiodens many as 14 samples (58.3%), the lateral location of as many as 10 samples (41.7%). The locations of premolars, paramolar and no distomolar
5. The prevalence of supernumerary characteristics based on status Teeth eruption. It’s founded that Teeth supernumerary 23 (93.8%) were perfect eruption and supernumerary Teeth only 1 (4.2%) were partial eruption.
6. The prevalence of morphological characteristics of the sample based on 24 samples obtained supernumerary Teeth conical morphology of 20 samples (83.4%), a form tubercular morphology by 2 samples (8.3%), morphology supplementale by 2 samples (8.3%) and morphology odontoma no.

SUGGESTION

1. Increasing the outreach activities one of which provides an understanding of the characteristics and supernumerary teeth are important is further handling. Supernumerary teeth can be clinically diagnosed, the decision to maintain supernumerary teeth should be based on clinical examination and interview. Diagnosis supernumerary teeth early and revocation allows avoiding or reducing the possible of complications.
2. Further research should be conducted so as to know the prevalence of supernumerary teeth in Makassar.

REFERENCES
