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Evaluation of Surgical Early Revolution of All Prividual Dental Revolutions in the Ministry of Circumstances RSGM Baiturrahmah

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Abstract

Tooth extraction of adult patients, tooth extraction of pediatric patients is one of the simple routines in the surgical clinic of the faculty of dentistry. While extraction at the time of eruption of the primary teeth is usually accepted as a physiological process, tooth loss before the time of natural eruption is defined as a premature loss.

The purpose of the study: *To determine the taxonomic definition of teeth, the definition of primary teeth, the period of tooth growth, tooth extraction, indications and contraindications of tooth extraction and the reasons for tooth extraction. This research method is a descriptive research study. The research subjects were obtained from the probability sampling method with consecutive sampling techniques. The time of the research was carried out in September-December 2019. Data was taken by distributing research questionnaires to research subjects.*

Based on the research that has been carried out, it was found that about half of all extractions were early and it was observed in the early extractions that the extraction of incisors and canines in girls and extraction of the first primary first molars in boys showed a statistically significant difference. Data was taken by distributing research questionnaires to research subjects. Based on the research that has been carried out, it was found that about half of all extractions were early and it was observed in the early extractions that the extraction of incisors and canines in girls and extraction of the first primary first molars in boys showed a statistically significant difference.

Introduction:

Along with tooth extraction for adult patients, tooth extraction for pediatric patients is one of the simple routines in the surgical clinic of the dental faculty. While extraction at the time of eruption of the primary teeth is usually accepted as a physiological process, tooth loss before the time of natural eruption is defined as a premature loss. Early loss of primary teeth is generally a common public health problem (Calcavante et al, 2008; Al-Shahrani et al, 2015).

Teeth based on the growth process are divided into 2, namely deciduous teeth and permanent teeth. Deciduous teeth are the first teeth to grow, often called primary teeth or milk teeth. The eruption of deciduous teeth begins at the age of 6 months. At the age of about 2.5 to 3 years, the deciduous teeth have all erupted. The number of teeth in this phase is 20 primary teeth (8 incisors, 4 canines, 8 molars). These deciduous teeth are temporary, after 2 to 3 years, these deciduous teeth will be replaced into permanent teeth (Wasilah and Niken Probosari, 2011).

32 permanent teeth are consisting of 8 incisors, 4 canines, 8 premolars, and 12. The time of eruption of the permanent teeth is indicated by the eruption of the mandibular first permanent molars at the age of 6 years. and Non- Succedaneous teeth. Succedaneous teeth are permanent teeth that replace milk teeth, namely incisors, canines, and premolars (replaces primary teeth 1st and 2nd molars). Non-succedaneous teeth are teeth that do not replace milk teeth, namely 1st, 2nd, and 3rd molars (Wasilah and Niken Probosari, 2011).

Teeth can also be divided into two based on their location, namely anterior teeth and posterior teeth. The anterior teeth consist of central incisors and lateral incisors and canines. The posterior teeth consist of premolars and molars. Teeth are also divided into several parts based on their surface. The occlusal surface is the masticatory surface of the molars and premolars (for mastication). The mesial surface is the surface closest to the medial line. The lingual surface is the surface closest to the tongue in the lower jaw. The palatal surface is the closest surface of the tongue in the maxilla. The facial surface is the

surface of the teeth or the side opposite the cheeks or lips. The distal surface is the surface furthest from the midline.

Primary teeth, like permanent teeth, have several functions, including mastication, speech, and aesthetics. In addition, primary teeth have a special function that is not owned by permanent teeth. Primary teeth can serve as a guide for permanent teeth so that they will erupt in place so that they can maintain the growth of the jaw arch. Loss of primary teeth is a normal or physiological process, but it can also be caused by disease and trauma in which the teeth must be extracted (Mamonto E et al, 2014).

Early extraction of primary teeth is carried out for reasons such as socioeconomic conditions, inability to reach the guidance of a specialized player in this subject, and indications of error (Bansal M et al, 2017). These include poor oral hygiene, dental injuries, tooth decay, and infections (López-Gómez SA et al, 2016; Mulu W et al, 2014; Holan G et al, 2014). Indications for dental extraction of pediatric patients that have been planned by a pedodontist are very important in terms of maintaining the structure of the jaw-straight teeth in the future and the ability of the protective treatment to be provided. Primary teeth that can be held in the mouth until physiological eruption have many advantages. Early loss of primary teeth can result in loss of root canal length necessary for the permanent continuation of teeth, for crowding, for rotation, and permanently implanted teeth. Economic and time losses are questionable due to the development of long-term orthodontic requirements (Macena et al, 2011; Cernei ER et al, 2015)

Since root resorption occurs in the extraction of primary teeth that occurs during the physiological eruption, both the preferred anesthetic and the ease of extraction allow for a comfortable clinical process for both the patient and the dentist (Özerol P et al, 2014; Bansal M et al, 2017). This study was structured to look at the number of early-stage primary tooth extractions and evaluate the surgical extraction of primary teeth for all primary tooth extractions due to the absence of a pedodontist in the faculty.

Research Method

Research This type of research is a descriptive study in which the surgical evaluation of early primary tooth extraction on all primary tooth extractions at the IKGA department of RSGM Baiturrahmah to determine the number of early extractions of all primary teeth in the past year and to increase awareness of pediatric patients in terms of extraction.

The Research Sampling

Using a probability sampling approach by combining aspects of stratification and taking process documents and information in the IKGA lab room, Baiturrahmah University, about 50 respondents were sampled in each place and grouped by age group 4 to 12 years. For this study, we limited our analysis to children aged 4 to 12 years who had their teeth extracted from September-December 2019.

Procedure

Based on the classification of Logan and Kronfeld, incisors, canines, and molars 1 and 2 are divided into groups such as extraction of early primary teeth and normal extraction of primary teeth in physiological processes. The study was conducted by giving questionnaires to the parents of patients who had their teeth extracted. Separate evaluations were carried out based on gender and age. The anesthetic technique used and the number of individual extractions was evaluated. children aged 6-11 years and filled out a questionnaire by the patient's parents.

Analysis

Descriptive statistics, averages, and categorical variables are expressed as numbers (n) for the constant variables in this study.

Result and Discussion

Result

The study was conducted at the IKGA Department of RSGM Baiturrahmah from September-December 2019 with a sample of 50 children aged 4-12 years who had their primary teeth extracted by giving a questionnaire to the patient's parents. The number of patients and the mean age between the specified dates are provided in Table-1. In Table-2, the distributions are shown by age and sex in addition to the number of incisors, canines, molars based on early and normal extraction times.

Table 1. Number of patients and mean age by sex

	Girls	Boys	Total	P
n	424	331	755	0.659*
Average Age	8.3	8.18	8.24	0.001*

Table 2. Distribution of teeth and the number of deciduous teeth extracted by sex

	Insisivus		**Kaninus**		**Molar 1 desidui**		**Molar 2 desidui**	
	4-5 years old	6-7 years old	<7-8 years old	9-11 years old	<8-9 years old	10-11 years old	<8-9 years old	10-11 years old
Boys	23	60	4	55	29	34	46	4
Girls	33	70	50	20	10	21	18	11
Average age of boys	4.5	7.3	7.5	10.3	8.4	10.6	8.1	10.4
Average age of girls	4.3	7.5	8.3	10.4	8.2	10.8	8.4	11

It was found from the study that significantly more teeth were extracted in boys than in girls (Table-1). When the groups of extracted teeth were evaluated by sex, the initial extraction of incisors and canines was found to be on a larger scale in girls than in boys. However, in boys, early extraction of the first primary molars showed a statistically significant difference in boys compared to girls.

There were statistically significant differences in the early extraction of the mandibular canines in girls compared to boys and in the early extraction of the maxillary and mandibular primary molars (Table-3). Because extraction of the primary molars saved the regional anesthetic application as a package in the operative information entry, the same number of regional anesthetic applications as the extraction was performed. When the number of patients was evaluated by the number of extractions, it was determined that more than one tooth extraction was performed in the same session of the same patient.

Table 3. Distribution of maxilla-mandibular extractions in girls and boys whose primary teeth were removed early

	Insisivus		**Kaninus**		**Molar 1 desidui**		**Molar 2 desidui**	
	4-5 years old	6-7 years old	<7-8 years old	9-11 years old	<8-9 years old	10-11 years old	<8-9 years old	10-11 years old
Men Maxilla	12	70	50	11	32	34	15	22
Women Maxilla	33	60	4	20	29	11	18	11
Mandible of	12	55	72	15	44	12	11	22

boys								
Mandible of girls	23	21	20	30	31	11	39	11

Discussion

The Surgical evaluation of the number of extractions and the extraction process of the extraction of the primary teeth in the extraction of the primary teeth was carried out last year at the IKGA department of RSGM Baiturrahmah which was planned in this study. It was determined as a result that early extractions make up about half of all extractions and statistically significant differences were observed in the extraction of incisors and canines in girls and first primary molars in boys in early extractions.

Al-Shahrani et al reported in a study involving 307 patients that they performed to determine the early extraction of primary teeth and primary molars between the ages of 9-11 that 51% of all extractions were early extractions. In this study, the initial extraction ratio was 49.9% when incisors were included, and the results are consistent with the literature (Al-Shahrani et al, 2015). In a study by Murshid et al., conducted on children between the ages of 5–10, it was found that early extraction of primary teeth was performed at a ratio of 40.54% and no difference between the sexes was observed. It was determined that the greatest loss was in the lower left 2nd primary molar 13 However, in studies conducted in Brazil and Denmark, the initial extraction ratios have been presented as 24.9% and 47.3%, respectively (Calcavante A et al, 2008).

In a 5-year retrospective evaluation in which the causes of extraction of primary molars in Turkey were investigated, 2508 tooth extractions were performed from 1755 children between the ages of 2-12, that most extractions were caused by decay, that there was no difference between sexes, and that primary molars were deciduous are more often extracted (Bani M, 2015). The results of the study are partly consistent with the literature. There were differences between the sexes by a group of teeth in this study. However, the number of extractions of primary molars is significantly supported in the literature. Apart from this, when the 5-year patient and extraction rates at the study center were compared with the 1-year patients and the extraction rates from this study, interesting differences were revealed.

Pediatric patients are the most difficult group of patients in the surgical clinic, and children need to be prepared psychologically by the doctor for injection and extraction. For operations on pediatric patients, as pediatric consent is observed, the amount of time spent in the chair may be longer than for adult patients. There are various steps to observe even for anesthetic application (Saglam AA, 2005). As the child was young at the initial extraction, cooperation became more difficult and doctors struggled on the side of anesthesia and extraction. The difference in the mean age between the mean initial extraction

age in the study and the extraction in physiological processes appears to be a serious problem over periods such as the average of 3 years. This average is lower for boys than for girls.

The number of extractions of primary molars in this study comprised 52% of all extractions. And of these, 32% are primary molars extracted from boys. The surplus in the number of initial extractions also brings together the application of regional anesthesia as much as the number of extractions. Regional applications are applications that have some risks. While extraction is even possible with topical and infiltrative anesthetics which are mostly less risky, clinicians are forced to opt for regional application in the initial extraction because root resorption is complete when extraction comes within the physiological process of the tooth (Özerol P et al, 2014).

It is not possible to say net numbers in studies for local, topical, and application in physiological extractions because information processing automatically combines all primary molar extractions with regional anesthesia. On the other hand, this extraction can be traumatic in children because root resorption is not performed in the early tooth extraction and because the root divergence is rather high especially in the extraction of primary molars (Bansal M et al, 2017). While local anesthesia is a frightening and worrying situation, it is a process in which the development of a fear of dentists is expected in future children after this type of extraction (Cademartori MG et al, 2017).

The child can leave the clinic without having an extraction due to the fear they experience during the application of anesthesia or the operation being carried out by keeping them in the chair with the urging and consent of the parents. Trauma experienced by a child and future dental care can be evaluated in terms of dentist fear (Sjögren A et al, 2010). The dental fear that may develop during or after the extraction of a pediatric patient and the period the child is sitting in a chair can be evaluated separately within the limits of the study. Since this study was retrospective, evaluation of dental anxiety was not performed (Sjögren A et al, 2010)

In a study by Sjögren et al., they concluded that it would be more appropriate to control pain to have one tooth extracted per visit. During extraction, regional infection or complete drowsiness is thought to occur in children. However, the feeling of pressure during extraction can be felt as pain in children. It was observed in the current study that more than one tooth was extracted in one session from the same patient and that the ratio of the patient to the extracted tooth was slightly more than 1: 2. Therefore, pain should also be included in the work during the application of the injection in addition to the feeling of pressure. in the extraction of patients because the application of anesthesia is carried out at the same level (Sjögren A et al, 2010).

Among the reasons for early primary tooth extraction, mainly the parents' ignorance and acting with the belief that the tooth will come back from below increased the number of extractions. In general, it is shown in studies that the reasons that hold the highest level of reasons for extraction especially for young children are putrefaction and eating and related sleep problems.

—Do pain complaints persist behind these reasons?‖ (Bani M et al, 2015).

The lack of pedodontists in the study faculty also suggests that the inability to achieve specialist guidance services for infants and pediatric canal care greatly increases the number of early extractions. Due to parents' socioeconomic status and unconsciousness, guidance to other centers was not always accepted, which formed the main reason for early extraction in the current study.

As a result, at an early age extraction falls to the extraction of primary teeth. The establishment of protocols for examining and treating specialist pedodontists in pediatric patients, providing easier access to pedodontists, and parental awareness can significantly reduce the number of early extractions. In terms of surgery, early molar tooth extraction can be a very upsetting situation for both the patient and the doctor. Extraction of a single tooth in one initial extraction session should be addressed in terms of the pain experienced under anesthesia and shorter processing time, and it should be taken into account that it will cause less trauma to the child.

Conclusion and Suggestion

Conclusion

It was identified that about half of all extractions were early and it was observed at the initial extraction that the extraction of incisors and canines in girls and extraction of the first primary first molars in boys showed a statistically significant difference.

Pediatric specialist examinations and treatment protocols in pediatric patients, easier access to pedodontists, and increased parental awareness can have a serious impact on the prevalence of early extractions in oral and maxillofacial surgery clinics. A single extraction in one session will be more convenient for both the child and the dentist.

Suggestions

Researchers suggest that further research and more samples be carried out to get more accurate results.

References

1.Al-Shahrani N, Al-Amri A, Hegazi F, Al- Rowis K, Al-Madani A, Hassan KS. “The prevalence of premature loss of primary teeth and its impact on malocclusion in the Eastern Province of Saudi Arabia”. Acta Odontol Scand 2015; 73: 544-549.

2.Bani M, Akal N, Bodur H, Odabaş ME, Tüzüner T, Delilbaşı AE, Özdoğan YT. “The reasons for extractions of primary teeth in Turkish children”. Eur J Paediatr Dent. 2015; 16(3):187-190.

3.Bansal M, Gupta N, Gupta P, Arora V, Thakar S. “Reasons for extraction in primary teeth among 512 years school children in Haryana, India- A cross-sectional study”. J Clin Exp Dent 2017; 9: 545-549.

4.Cademartori MG, Martins P, Romano AR, Goettems ML. “Behavioral changes during dental appointments in children having tooth extractions”. J Indian Soc Pedod Prev Dent. 2017; 35: 223-228.

5.Calcavante A, Alencar C, Medeirosbezerra P, Granville-garcia A. “Prevalence of early loss of primary molars in school children in Campina Grande, Brazil”. Pak Oral Dent J 2008; 28: 113116.

6.Cernei ER, Maxim DC, Zetu IN. “The ınfluence of prematüre loss of temporary upper molars on East” J Med Volume:23, Number:3, July- September/2018 186 permanent molars. Rev Med Chir Soc Med Nat Iasi 2015; 119: 236-242.

7.Fenanlampir, Mariati, Hutagalung. 2014. “Gambaran Indikasi Pencabutan Gigi Dalam Periode Gigi Bercampur Pada Siswa Smp Negeri 1 Langowan”. Jurnal E-Gigi (Eg), Volume 2, Nomor 2, Juli-Desember 2014

8.Holan G, Needleman HL. “Premature loss of primary anterior teeth due to trauma—potential short- and long- term sequelae”. Dent Traumatol. 2014; 30: 100-106.

9.López-Gómez SA, Villalobos-Rodelo JJ, ÁvilaBurgos L, Casanova-Rosado JF, Vallejos-Sánchez AA, Lucas- Rincón SE, Patiño-Marín N, Medina Solís CE. “Relationship between premature loss of primary teeth with oral hygiene, consumption of soft drinks, dental care, and previous caries experience”. Sci Rep. 2016; 6:21147.

10.Macena MC, Tornisiello Katz CR, Heimer MV, de Oliveira e Silva JF, Costa LB. “Space changes after premature loss of deciduous molars among Brazilian children”. Am J Orthod Dentofacial Orthop. 2011; 140:771-778.

11.Mulu W, Demilie T, Yimer M, Meshesha K, Abera B. “Dental caries and associated factors among primary school children in Bahir Dar city: a cross-sectional study”. BMC Res Notes. 2014; 7: 949.

12.Murshid SA, Al-Labani MA, Aldhorae KA, Rodis OM. “Prevalence of prematurely lost primary teeth in 5- 10-year-old children in Thamar city, Yemen: A cross-sectional study”. J Int Soc Prev Community Dent. 2016; 6: 126-130.

13.Nurhaeni, Asridiana. 2020. “Prevalensi Pencabutan Gigi Permanen Di Poliklinik Gigi Puskesmas Kaluku Bodoa Di Kota Makassar. Media Kesehatan Gigi”. Vol. 19 No.1 Tahun 2020

14.Özerol P, Alpöz AR. “Pedodontide kullanılan anestezi yöntemleri ve güncel yaklaşımlar. Bitirme Tezi”. Ege Üniversitesi Diş Hekimliği Fakültesi Pedodonti AD, İzmir 2014; 2-17.

15.Sağlam AA. Dental anestezi. 1st ed. Berkay Ofset Ltd Şti. Ankara 2005; 73-130.

16.Sjögren A, Arnrup K, Jensen C, Knutsson Ia, Huggare J. “Pain and fear in connection to orthodontic extractions of deciduous canines”. Int J Paediatr Dent 2010; 20: 193-200.

17.Wasilah, Niken Probosari. 2011. “Penatalaksanaan Pasien Cemas Pada Pencabutan Gigi Anak Dengan Menggunakananestesi Topikal Dan Injeksi. Stomatognatic” (J.K.G. Unej) Vol. 8 No. 1 2011 :51-55