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Depiction of Post-Odontectomy Pain Levels in Universitas Sumatera Utara Hospital Period of February-March 2017

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***Abstract*–Odontectomy is one of the most common minor surgery performed in dentistry. Every patients will experience postoperative pain after odontectomy. Pain is subjective, each individual reports pain based on his/her own perception. The pain rating scale is used to measure the pain intensity of a patient. The aim of this study was to find out the depiction of pain levels after odontectomy in the Universitas Sumatera Utara Hospital. This study was a descriptive study which the sample of this study is all of the odontectomy patients from 6th February until 6th March 2017 in the Universitas Sumatera Utara Hospital. On the seventh postoperative day, every patients were asked about his/her pain level. Pain intensity was assessed by means of the numeric rating scale. Numeric pain rating scale is an 11-point scale consisting of integers from 0 through 10; 0 representing ''No pain'' and 10 representing ''Worst imaginable pain". Every patients is asked to select the single number that best represents their pain intensity. Results showed that 48% patient experienced moderate pain and 52% patients had no pain on the seventh postoperative day. Dry socket was found on the extraction socket of patient who still experience pain on the seventh day. Poor oral hygiene is the main reason of this dry socket. Most of patients who had pain on the seventh postoperative day confess that they were afraid to reach the extraction site while brushing their teeth. This postoperative pain caused by delayed healing of extraction socket, so the pain still exists on the seventh postoperative day.**

Keywords–odontectomy, pain levels, healing process of extraction socket

I. INTRODUCTION

Odontectomy is a minor surgery to remove the impacted tooth. Most of impacted tooth is found on mandibular and maxillary third molar [1,2]. Impaction will cause some complications if it's not removed.

Each patient will experience postoperative effects of odontectomy. Postoperative pain is one of the effect that can't be avoided. Pain is subjective, each individual reports pain based on his/her own perception. According to the International Association for the Study of Pain (IASP), pain is defined as an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage [3]. Generally the pain will gradually decrease into "mild pain" until "no pain". If on the seventh day post-odontectomy the patient still feels disturbing pain, it's related to the disruption of the healing process of extraction socket.

Pain intensity is assessed by means of the pain rating scale. There is 4 types of pain rating scales which are often used in daily practice. There is Numeric Pain Rating Scale, Verbal Descriptor Scale, Visual Analogue Scale, dan Faces Pain Rating Scale [4,5]. Numeric pain rating scale is an 11-point scale consisting of integers from 0 through 10; 0 representing ''No pain'' and 10 representing ''Worst imaginable pain". Verbal Descriptor Scale is a 5-point scale consisting of a list of phrases (no pain, mild pain, moderate pain, intense pain, maximum pain) that describe increasing levels of pain intensity. Respondents select the single phrase that best characterizes their pain intensity. Visual Analogue Scale consists of a horizontal line 100 mm in length, with the end points ''No pain'' and ''Worst imaginable pain'' placed at each end of the line. Respondents are asked to make a mark on the line that best represents the level of pain intensity that they are experiencing. Faces Pain Rating Scale is a 6-point scale, with 6 different faces that represent increasing levels of pain intensity. Respondents are asked to select the one expression that best characterizes his or her pain intensity, from the left-most face (''No pain''), to the right-most face (''Very much pain'') [6].

II. MATERIALS AND METHODS

This study is a descriptive study which the sample of this study is all of the third molar surgery patients in one month in the Universitas Sumatera Utara hospital which has explained about the aim of the study. On the first day, an operator will write patient's data. On the seventh postoperative day, every patients is asked about his/her pain level. Pain intensity is assessed by means of the numeric rating scale. Numeric pain rating scale is is an 11-point scale consisting of integers from 0 through 10; 0 representing ''No pain'' and 10 representing ''Worst imaginable pain". Each patient is asked to select the single number (from 0-10) that best represents their pain intensity.

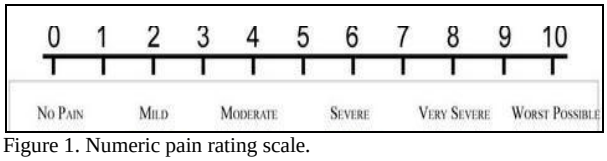

Figure 1. Numeric pain rating scale.

III. RESULTS

This study was performed on 61 patients (all of the odontectomy patients in one month) which consist of 20 man and 41 woman. In this study, most of third molar impacted is found on mandibular (71%).

Based on the impaction classification, first we relate the third molar impaction based on relationship with the anterior border of the mandibule , we found (5%) of impacted tooth were class I, (92%) were class II, and (3%) were class III. And then, based upon the amount of bone covering the impacted tooth and relation to occlusal plane, (2%) were on position A, (92%) position B, and (6%) position C. The last classification, based on the inclination of the impacted third molar to the long axis of the second molar, we found mesioangular (64%), vertical (8%), horizontal (18%), buccoangular (10%), and distoangular, linguoangular, and inverted were not found on this study.

TABLE I. DISTRIBUTION OF THIRD MOLAR IMPACTION BASED ON THEIR CLASSIFICATION

	Classification	n	%
1	Based on their relationship with the anterior border of the mandibule		
	Class I	3	5
	Class II	56	92
	Class III	2	3
2	Based upon the amount of bone covering the impacted tooth and relation to occlusal plane		
	Position A	1	2
	Position B	56	92
	Position C	4	6
3	Based on the inclination of the impacted third molar to the long axis of the second molar		
	Mesioangular	39	64
	Vertical	5	8
	Horizontal	11	18
	Buccoangular	6	10

On 7th of post-odontectomy, there are 29 samples (48%) who still feel the postoperative pain. Pain was reported as "moderate pain" which represented by the number of "4-6" on the numeric pain rating scale. Meanwhile, another 32 samples (52%) reported "no pain" on 7th postoperative day. Mild pain, severe pain, and worst incredible pain was not found on this study.

TABLE II. POST-ODONTECTOMY PAIN RATING SCALE

	Pain Intensity	Sample	
		n	%
1	No pain	32	52
2	Mild pain	-	-
3	Moderate pain	29	48
4	Severe pain	-	-
5	Worst incredible pain	-	-
	Total	61	100

IV. DISCUSSION

This study showed that pain levels of third molar surgery is "moderate pain". The pain on the seventh postoperative day is related to the healing process of extraction socket. Usually the pain will decrease into mild pain until no pain anymore on that day. If the patient still reported the pain on the seventh postoperative day, there's a possibility that the healing process is not working properly. In order to minimize thid condition, the patient should be reminded to keep the oral hygiene good.

In another study that done by Aniseh Farshid showed that pain levels after third molar surgery is mild pain to severe pain. On the seventh postoperative day, every samples reported different experience, some samples didn't feel pain anymore but some others still feel the pain on that day [7]. This can be happen because the pain is subjective which is means that one sample can feel a different pain from another sample.
The pain that still exist on the seventh postoperative day can be related to the delay of healing process of extraction socket [8,9]. Most of samples who experience that moderate pain reported that they were afraid to clean the extraction socket. Their oral hygiene were bad and dry socket were found on the samples who experience moderate pain.

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