

Anxiety Management of Patients First Time to The Dentist for Dental Extraction

Bambang Tri Hartomo^{*,**}, Saraya Hasyiyati Adani^{**,*}

^{*}Department of Dentistry, Faculty of Medicine, Jenderal Soedirman University, Purwokerto

^{**}RSGM Unsoed, Jenderal Soedirman University, Purwokerto, Jawa Tengah

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ABSTRACT

Background: Dental anxiety is a problem that often occurs in patients who will undergo dental treatment. Dental anxiety is a complex, multidimensional phenomenon, and there is no single variable that is the main cause. Dental anxiety is known to be a risk factor that causes various conditions such as pain perception, so that patients refuse to do dental work, especially invasive dental treatments such as tooth extraction. **Purpose:** The aim of this literature study is to provide information and knowledge about the management and treatment of dental anxiety in patients who come to the dentist for the first time for tooth extraction. **Literature Study:** This literature study was conducted using indexed and accredited national and international journals and provides information about the techniques that make the patient comfortable and reduce patient anxiety, as well as equipment that can be used in the extraction process that is comfortable for the patient. **Discussion:** Before performing tooth extraction operator needs an in-depth history to find out the patient's medical history and lifestyle. The approach technique used is influenced by the patient's attitude. At the second visit, the patient appeared to be more ready to accept the extraction procedure after providing information and descriptions to be carried out by the operator. **Conclusion:** Operators need to understand techniques to reduce anxiety levels in patients, especially patients who have never visited a dentist. After tooth extraction is complete, the operator must also pay attention to the consequences arising from the procedure, and pay attention to the post-extraction instructions.

Keywords: Dental anxiety, dental extraction, oral surgery, oral maxillofacial

Correspondence: Bambang Tri Hartomo, RSGM Unsoed, Jenderal Soedirman University, Purwokerto, Jawa Tengah. Email: bambang.hartomo@unsoed.ac.id

INTRODUCTION

Dental anxiety or anxiety of dental treatment is a problem that often occurs in patients who will perform dental and oral care. Dental anxiety is a complex, multidimensional phenomenon, and there is no single variable that is the main cause. Several studies show that the prevalence of anxiety in patients who first visit the dentist reaches 40-60%.¹ Anxiety arises, especially if a tooth extraction is to be performed. Dental anxiety is known to be a risk factor that causes various conditions such as pain perception, so that patients refuse to do dental work, especially invasive dental treatments such as tooth extraction. To measure anxiety and fear of dental care, a questionnaire filling method can be used, the formation of patient behavior and desensitization techniques also can be used to minimize the anxiety of dental.²

Tooth extraction is the process of removing a crown including the dental root from the alveolar bone socket, which cannot be treated. Tooth extraction is carried out using extraction equipment. Dental extraction tools used include extraction pliers or dental forceps, beins or elevators, bone cutting forceps and curettes. The extraction forceps used have different shapes and functions according to the tooth to be extracted². The principles of asepsis and surgery need to be applied to the extraction of teeth. The aseptic principle is needed to prevent infection as a complication in post-extraction wound healing. Extraction without pain, minimal trauma to the surrounding periodontal tissues, and complete healing of extraction scars are components of an ideal tooth extraction³.

Patients who are about to undergo tooth extraction must be ensured that they are in good general health. If the patient has a systemic disease, the extraction procedure must be accompanied by further examination, because if it is forced and using inappropriate tools and techniques it can cause extraction complications. Dentists should have the ability to take a careful history regarding the history of

previous tooth extraction, careful clinical examination, and radiographs to predict the difficulty level of tooth extraction.⁴

Indications for tooth extraction include deep tooth caries that cannot be treated, tooth mobility of grades II and III, infection in the periapical area, severe and untreated abrasion / erosion / attrition, impacted teeth causing complaints to the patient, Excess and malposition of teeth that interfere with chewing function, speech, or esthetic needs, orthodontic needs, severe tooth fracture, and teeth that become focal to an infection.⁵ Contraindications for tooth extraction include patients with a history of uncontrolled systemic disease, periapical infections in the teeth that are about to be extracted, patients who are pregnant in the first and third trimester, female patients who are menstruating and patients with high risk. as in elderly patients.⁶

The use of anesthetic techniques for posterior mandibular tooth extraction also needs to be considered, according to the patient's condition. Extraction of mandibular teeth requires adequate anesthesia and is generally performed under mandibular block anesthesia for posterior teeth and infiltration technique for some posterior and anterior teeth, in contrast to maxillary tooth extraction which uses an infiltration technique. the larger needle and syringe size in the mandibular block anesthetic technique makes the patient more anxious and worried, compared to the infiltration technique which can be performed with a smaller needle and syringe or using a cytoject.² However, block mandibular anesthesia technique can be an option because it has a wide coverage area and has a long duration, making it easier for the operator to perform the extraction procedure. Another alternative local anesthetic that can be used is the infiltration technique using either a syringe injection or a cytoject with an area that is not as large as the mandibular block technique.⁷

The operator also needs to consider the extraction complications that may occur in the patient. Extraction complications are a specific response from the patient that can occur at the time of the procedure or after the extraction



procedure. Complications in extraction can include bleeding, fracture, soft tissue injury, nerve injury, edema, drug reactions and dry socket. Extraction complications can be prevented, and their occurrence is minimized with good pre-extraction preparation and in-depth history.⁸ In-depth history of the patient can reduce the patient's level of anxiety, especially in patients who are new to a dentist.⁹

Anxiety arising from tooth extraction is not considered a serious health problem but can become a barrier for operators in their efforts to improve oral health. The anxiety experienced by the patient can cause several problems, such as the patient feeling tense, excessive alertness, trembling hands and feet, talking a lot, dilated pupils, giving a picture of uncontrollable fear, excessive sweating of hands and face. Even under certain conditions, patients can experience generalized visceral reactions in respiration, heart, blood vessels, digestive dysfunction, hysteria, and even shock.¹ Anxiety is an affective psychological factor that affects the perception of pain. In many cases of acute pain such as pulpitis, anxiety has a lot to do with an increase in the incidence of pain, i.e., not only decreasing the patient's pain threshold but also in fact resulting in the perception that pain should not be pain, even under different conditions, a patient may show a reaction. different even though the stimulus is the same. Patient anxiety has a negative effect on the treatment procedure to be performed.¹⁰ In this report, to reduce patient anxiety, The authors also list several mandibular block anesthetic techniques that can be used to reduce patient tension and anxiety, and the management of extraction patients who have never been to a dentist before. It is hoped that a comfortable extraction with minimal pain and proper anesthetic technique will reduce the level of anxiety in the patient.

Tooth extraction

Tooth extraction is a process of removing of a tooth that can no longer be maintained from the alveolar bone. Tooth extraction is a minor surgical procedure that involves the soft tissue of

the oral cavity, the access is limited by the lips and cheek mucosa which are then joined by movement of the tongue and jaw.¹¹ A tooth can be extracted if it has a pathological pulp that cannot be treated, either by filling or by root canal procedures. In addition, teeth with severe periodontal disease can also be extracted.⁵ There are several steps that need to be considered in carrying out tooth extraction, including good anesthesia procedures, extraction of the tooth along with its roots and control of bleeding during and after the extraction procedure.¹² Tooth extraction can cause complications that should not occur at the time of extraction or after extraction. Complication is a particular response to the patient either during the procedure or after the procedure. Complications due to tooth extraction occur due to various factors. Complications that are often encountered include bleeding, swelling, dry socket, fracture and mandibular dislocation.¹³ Post-extraction bleeding often results from excessive trauma, infection and lesions in the vascular tissue. Patients with post-extraction bleeding complications can be treated in the form of spongostan administration in the socket and then suturing.¹² Dry socket is a socket condition that does not form a blood clot. The symptom of a dry socket is localized pain in the area of continuous extraction¹⁴.

Mandibular block anesthesia

Mandibular block anesthesia can be performed if the operator requires a large area of anesthesia, for example in the case of extracting the posterior mandibular teeth or extracting several teeth in the same region with the same innervation.¹⁵ The Gow-Gates anesthetic technique includes the lingual nerve, the buccal nerve, the mylohyoid nerve and the auriculotemporal nerve. The teeth to be anesthetized are the teeth in the mandibular half quadrant area, the buccal mucoperiosteum, mucous membranes in the area of anesthesia, 2/3 anterior of the tongue and floor of the mouth, soft tissue of the lingual part, mandibular body, cheek posterior and temporal.¹⁶



The Gow-Gates technique block anesthesia procedure is primarily the operator's position in the 8 o'clock area for the right mandible and the 10 o'clock area for the left mandible. The patient is positioned semi supine and instructed to open the mouth wide.¹⁵ The operator determines the extraoral point, namely the intertragic notch and the corner of the mouth. The operator determines the point of insertion in the mandibular condyle area under the external pterygoid muscle. The syringe is directed at the parallel plane between the corner of the mouth and the intertragic notch. The needle is transverse from the opposite side of the maxillary canine, crossing across the palatal protrusion of the maxillary M2 tooth on the side to be injected. The needle is slowly inserted until it makes contact with the condyle neck bone, to a depth of approximately 25 mm. Once it has contact with the bone, the syringe is aspirated and a slow deposit of 1.8-2 ml can be made.¹⁷

The akinosi anesthetic technique has the goal nerves of the mandibular half quadrant, mandibular body and lower ramus, buccal mucoperiosteum and mucous membrane in front of the mental foramen, floor of the mouth and two-thirds of the anterior tongue of the tongue, soft tissue and the periosteum of the lingual part of the mandible. This technique is performed with the patient's mouth closed so it is best used in patients who have difficulty or pain when opening the mouth or trismus.¹⁶

The akinosi block anesthetic procedure is that the patient is first positioned supine or semi supine. Operator position at 8 o'clock for the right and left jaw. The index finger and thumb are placed on the coronoid bulge, the area of the maxillary tuberosity. Then the patient was instructed to perform occlusion. The needle is placed parallel to the maxillary occlusal plane, then inserted at the M3 and M2 mucogingival junctions. Then the needle is deflected toward the ramus. Aspirate and deponit 1.5-18 ml.¹⁷ In Fisher's technique of anesthesia, the patient is first positioned semi supine. The application of antiseptic in the form of povidone iodine in the retromolar trigone area. The index finger is

placed behind the last tooth of the mandible, sliding it laterally to feel the external oblique line. Then the index finger is shifted towards the median area to find the internal oblique line, the nail arch tip is in the internal oblique line area and the side surface of the finger is in the occlusal plane of the mandibular teeth. Position I: The needle is inserted in the middle of the nail arch, from the side of the jaw that is not anesthetized, that is, in the premolar region. Position II: The syringe is shifted towards the side to be anesthetized, parallel to the occlusal plane and the needle is inserted 5 mm deep and then aspirated. If the aspiration is negative, 0.5 ml of anesthetic solution is issued for lingual nerve anesthesia. Position III: The syringe is shifted in the direction of position I, but not completely then the needle is inserted while tracing the bone, approximately 10-15 mm deep. Aspiration and if negative the anesthetic solution is issued as much as 1 ml for inferior alveolar nerve anesthesia.¹⁸ In Fisher's modified anesthetic technique, after performing position III, when pulling back the syringe before the needle is released from the mucosa, i.e. right after passing through the internal oblique line, the needle is shifted laterally to the retromolar trigone area, then aspiration and anesthetic solution are removed as much as 0.5 ml Buccal nerve anesthesia. Then the syringe is pulled out again.¹⁹

Extraction tools

Tooth extraction is carried out using dental extraction tools that have a specific shape and function. Dental extraction tools used include extraction pliers or dental forceps, beins or elevators, bone cutting forceps and curettes. The extraction forceps used have different shapes and functions according to the tooth to be extracted.² The maxillary extraction forceps are characterized by an almost straight beak and handle when viewed from the side. Teeth that have a crown use an open beak, while those with a root remaining use a closed beak. The third molars have special pliers that are shaped like a bayonet.²⁰

Management of patient anxiety

Anxiety is a non-specific symptom that is common and is often a normal emotion. Anxiety is the most common and important problem for a dentist, therefore it is best if a dentist should be able to understand the presence of anxiety in patients as early as possible, so as to facilitate identification of patients with a tendency to anxiety. Anxiety in a patient that is left untreated or not understood by the operator can lead to shock and syncope. The approach and way of dealing with anxious patients greatly affects the smoothness and success of the treatment plan that will be carried out. Dealing with a patient who is not cooperative, often makes it difficult for a dentist to perform treatment.²¹ Psychodynamic theory explains that anxiety is the result of unconscious psychic conflict. When self-control mechanisms work, anxiety can decrease and a sense of security returns. but when the conflict is continuous and prolonged, then anxiety is at a high level. This self-defense mechanism as a symptom, such as phobia, regression and ritualistic behavior. Behavioral theory states that anxiety comes from a response to a specific stimulus. This anxiety is the result of frustration, so it will interfere with the individual's ability to achieve the desired goals.²²

Management of anxiety can be done by shaping the patient's behavior towards the ideal. In the field of dentistry, it is said that ideal behavior is shown by patients who maintain excellent oral hygiene, practice dietary management, and are relaxed and cooperative during operative care. If the patient is unable to cooperate, it can be postponed first. In addition, strengthening the patient can be done by giving rewards to patients who can suppress their anxiety.²³ Desensitization is one of the techniques most often used by psychologists to combat fear. This technique includes three stages, firstly training the patient to relax, secondly building a stimulus hierarchy, third introducing each stimulus in the hierarchy to relax the patient, starting with the stimulus that causes the least amount of fear and advancing to the next stage only when the patient is no

longer afraid of the stimulus¹. Cognitive Behavioral Therapy (CBT) or Exposure Therapy through several stages, namely providing information using the "Tell Show Do" method, then relaxing the whole body and muscles. The method often used is to instruct the patient to inhale and exhale slowly while the patient counts to four. Another thing can also be done by distraction by breaking the patient's focus on the anxiety that is being felt by inviting the patient to talk and involving the patient in activities that make thinking, so that they forget about feeling anxious.¹¹ In addition, video based patient education can also be done in the form of information about the diagnosis of disease, causes of disease, stages of treatment, the healing process and the results, the possibility of recovery (prognosis), complications that may occur after treatment, and the consequences if treatment is not done²⁴.

Stages of care

On the first visit, tools and materials were prepared. Then do an in-depth history of the patient. Furthermore, the patient was inspected and excavated with objective examinations. If the results showed that percussion was (+), it was necessary to give medication before the action and control instructions for 5 days later. Providing information and procedures for actions that will be carried out can reduce the feeling of anxiety in the patient.²⁵ On the second visit, the dental team should preparing tools and materials in the form of a diagnostic set, handscoon, mask, nurse cap, slaber, suction, mouth rinse, bein, extraction forceps, curette, povidone iodine, syringe, anesthetic solution, tampon and gauze. Inspection and objective examination and evaluation after administration of medication are carried out. If The percussion result is stated (-), the extraction action can be carried out.¹⁰ The patient is given an overview of the tooth extraction to be performed. Providing information and procedures for actions that will be carried out can reduce the feeling of anxiety in the patient. Furthermore, informed consent was given before the extraction action began.²⁴



Disinfection using povidone iodine in the area to be anesthetized. Anesthetize the inferior alveolar and lingual nerves using the Fisher block technique and the long buccal nerve by infiltration. The anesthetic used was pehacain, each ml containing 20 mg of lidocaine HCL and 0.0125 mg of adrenaline with a maximum dose of 7 mg / KgBW.²² Lift the teeth with the elevator or bein. Extracting the tooth using pliers when the leverage is sufficient and the tooth has been lift up. After the tooth root was completely removed, debridement was carried out in the form of cleaning the wound, smoothing the sharp bone with a bonefile, cleaning the tooth socket from the remaining bone fragments or necrotic tissue using a curette. Irrigate with povidone iodine antiseptic solution. The patient is instructed to bite the tampon for 30-60 minutes. Prompt for regular consumption of antibiotics, anti-inflammatory and analgesics. Post extraction procedure instructions.²²

DISCUSSION

Before performing the tooth extraction procedure, the operator requires an in-depth history to determine the patient's medical history and lifestyle. In-depth history is in accordance with the literature that a good history will minimize complications after tooth extraction. Tooth extraction is an invasive procedure that can make the patient feel uncomfortable or stressed, so a good history taking approach and eye contact with the operator can assure the patient to feel safe and calm²⁵. In addition, a good and targeted anesthetic technique must be recognized by the operator as a successful extraction attempt. To reduce the patient's anxiety when a tooth is extracted under mandibular block anesthesia, a method that is comfortable for the patient can be chosen. In addition, operator skills are also needed in performing mandibular block anesthesia with techniques that minimize pain so that patient anxiety can be reduced. If at the first meeting the patient is not ready for extraction, it is best not to force the tooth to be extracted. Second visit is

the right time to carry out tooth extraction for patients with high anxiety levels. The choice of anesthetic technique can also be taken into consideration with the patient's condition to be extracted. For example, Patients who experience high levels of anxiety about injection needles and syringes can be diverted their eyes using visual media or invited to communicate which can reduce patient tension. The dentist can also provide sentences suggesting that the local anesthetic process with mandibular block is carried out comfortably and causes minimal pain. Thus the anesthetic procedure does not interfere with the patient's condition⁷. The use of extraction equipment is adjusted to the location and condition of the patient's teeth. In the extraction of the cases, the operator used tools in the form of beins, forceps, bonefile and curette. This is consistent with the literature that tooth extraction is carried out using dental extraction tools that have specific shapes and functions. Dental extraction tools used include extraction pliers or dental forceps, beins or elevators, bone cutting forceps and curettes. The extraction forceps used have different shapes and functions according to the tooth to be extracted.² Post extraction instructions are given by the operator to the patient with the aim of avoiding post-extraction complications and accelerating wound healing. This is in accordance with the literature that post-extraction instructions, both verbal and written, should be done as a form of reducing the percentage of complications after extraction. Information that can be provided includes biting the tampon for 30 minutes or more after extraction, avoiding gargling and spitting too often, consuming soft foods with cold or room temperature temperatures, applying ice cubes to the cheek that has been extracted, maintaining clean cavities mouth, avoiding cigarettes and alcoholic beverages for one week or more after tooth extraction and taking any medications as prescribed.²²

If The patient has never had his teeth checked or treated by a dentist, the operator should provide an anxiety management



approach to the patient so that when the extraction is done, the patient feels safe and calm. The management of anxiety is in accordance with the literature described by Mufti.¹⁰ that an approach in managing behavior in patients is important and is an integral part of oral health. Various factors can influence patient behavior in the dental environment. Different approaches are used which are influenced by the patient's attitude. At the second visit, the patient appeared to be more ready to accept the extraction procedure after providing information and descriptions to be carried out by the operator. The operator also reiterates the provision of information so that the patient is truly ready and has complete trust in the operator.²⁵

CONCLUSION

Tooth extraction has principles that we must adhere to properly. The various steps carried out in the implementation of tooth extraction pay attention to the position of the operator and the position of the patient's dental unit when carrying out the extraction procedure. Operators need to understand techniques to reduce anxiety levels in patients, especially patients who have never previously visited a dentist. After the tooth extraction is complete, the operator must also pay attention to the consequences of the procedure, and also pay attention to the post-extraction instructions.

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