# The Effect of Anesthesia on Human Life

Mohammed H.Alswat[1], Faris H.Shar[1], Mohammed M.Albeladi[1], Mohammed K.Alhuzali[1], Muhanned N. Alshelli[1], Hassan A.Alotaibi[1], Fahad S.Alshreef[1], Obaidallh M.Alwagdani[2], Ibrahim A.Alqurashi[2], Abdullatif S.Aljohani[2]

[1]Anesthesia techincian at King Faisal Medical complex
[2]Operation techincian at King Faisal Medical complex

## Abstracts

This current study aims to study the effect of anesthesia on human life, what are the types of anesthesia currently used for humans, and what is the role of anesthesia in preserving human life. A questionnaire was prepared via Google Drive and the questionnaire (500 in number) was distributed to men and women aged between 25 -55 years old, in the city of Taif, via the social networking program (WhatsApp), and 480 responses were obtained via Google Drive. She concluded that it is necessary to continue working on advanced anesthesia methods.

## 1. Introduction

Anesthesia (1) is the path of using medicines capable of feeling of pain in the morning, and some other emotions in the field of medicine (especially surgery and dentistry). Notice: Analgesics (which relieve or prevent chronic pain), temporary paralysis of the body's muscles (relaxation of flexibility), lack of memory, and temporary growth of consciousness. A patient who is under the impact of narcotic drugs is indicate to as anesthetized. Anesthesia is used to help patients undergo medical procedures and surgeries without pain or pain. Three foundations of anesthesia: general anesthesia, sedation, regional anesthesia and local anesthesia, Local anesthesia is the anesthesia of a specific area of the body to do tiny surgery on this member or part of the body, other than public or integration anesthesia. (2)(3)(4) domestic anesthetic works to numb a part of the body's surface, and can be used to numb any area of the skin, surgeries in the front part of the eye, and inside the nose, ear, throat, anus, and sexual organs (5). home anesthetics are available in the form of ointment, cream, home spray, and gel. Examples of domestic anesthetics contain benzocaine, budipine, dibucaine, lidocaine, oxypropiquine, pramoxine, and tetracaine. All of these materials are taken from natural cocaine isolated from the coca plant, which is still used in some surgical techniques. There are various paths for home anesthesia, containing surface anesthesia: Here, local anesthesia is applied to the face to be anesthetized, either through a spray, as in anesthetizing the mucous membranes of the mouth before inserting the endoscope into the throat, or by placement an sticky on the leather so that the anesthetic come in the category of the leather and numbs them. stratum anesthesia: The anesthetic is integrated, for example, through a needle into the layer to be anesthetized, so that

the full tissue in that category of the body is anesthetized. It is an anesthesia that can be used in little and tiny operations, and one of its benefit is that it is simple to apply, but it demands relatively large quantities of the anesthetic substance, so it is not proper for anesthesia of average and large operations. Interceptive anesthesia: It is act by injecting the anesthetic near the nerve (not directly on it) nutrition the area to be anesthetized. Its principle to stop (intercept) the suffering information from linking from the periphery (the organ being operated on) to the center (the spinal cord or the brain). It is a smart method to keep on the amount of local anesthesia, enables to anesthetize entire parts of the body, and is often used to anesthetize the extremities or parts of them such as fingers, hands, or feet. This path needs to know the path of the nerves that transport sensory information so that it can be intercepted and the pain stopped. One of its disadvantages is that it is hard to use in anesthetizing the torso or head. The anesthetic substance works to prevent the movement of the electrical signal along the axon by blocking the work of sodium channels in the nerve cell wall (rather than the axon wall), and thus the action potential does not form. This disruption drive to the separation of the limb from the center. The suffering signal stay in the limb without overriding the dot of anesthesia and therefore is not perceived or felt by the brain. Conversely, the orders arriving from the brain to the limbs also do not reach, and thus the limb becomes paralyzed throughout the period of this disconnection. Local anesthetic is used to relieve pain and itching resulting from sunburn or minor burns, insect bites, poison ivy, poison oak, and small cuts and scratches (6). Local anesthetic is used in ophthalmia and in measuring visual acuity to numb the surface of the eye (the external layer of the cornea and conjunctiva) in the following cases: surface tension mensuration, doing a schmermer test, stopping any foreign body from the upper part of the cornea and conjunctiva. The greater bottom and size of the foreign body, the greater the amount of anesthetic needed to numb the surface of the eye to remove the foreign body from the cornea and conjunctiva. In dentistry, local anesthesia is used to numb the oral cavity before using an actual dental anesthetic because it requests inserting a needle into the soft tissues of the mouth (7). There are a number of general conditions that reason the choice of the kind and path of anesthesia used in oral surgical operations. Either under local or general anesthesia, the dentist must study the indications and contraindications for each of the two ways before deciding to use one of them in a special case. The cause for this is the poor choice of the kind of anesthesia used. What is common is speed, and there are factors that control the choice of the type of anesthesia. In general, obese or morbidly obese patients are not suitable for performing surgical procedures under general anesthesia in a dental treatment chair. However, patients do not have the ability for such cooperate for certain reasons such as fear, apprehension, excessive nervousness, and panic. Mental deficiency or insanity, are general diseases that can decide the choice of the type of anesthesia. Any medical condition that causes a weakening of the ability to breathe or a failure to expand the airways is considered a contraindication for general anesthesia. Chronic bronchitis, emphysema, bronchiectasis, asthma, tuberculosis, or excessive smoking are all conditions that affect respiratory exchanges. In most patients with any type of heart disease, the blood vessels cannot handle the lack of oxygen or low blood pressure. Also, the antihypertensive medications that patients with high blood pressure take can cause two specific problems when using general anesthesia. Therefore, local anesthesia is preferred every time this is practical. Therefore, experts prefer to give

anesthetic solutions. Topical medications that do not contain epinephrine for patients with cardiovascular diseases. (8).

## 2. Material and Methods:

The study began in (in the city of Taif in the Kingdom of Saudi Arabia), and the study ended February 2024, and writing the data collection and finish writing finally in July 2024. The researcher used descriptive analysis, an approach that uses quantitative or qualitative description of the social phenomenon (the effect of anesthesia on human life) the independent variable (the effect of anesthesia for humans globally) and the dependent variable (the effect of anesthesia for humans locally). This type of study is characterized by analysis, reason, objectivity, and reality. It is also concerned with individuals and societies, as it studies the variables and their impact on the health of the individual, society, and the consumer, and the spread of diseases and their relationship. For demographic variables such as age, gender, nationality, and marital status. Status and occupation (9), Use Excel and Office 2010 to sort the results (10). The questionnaire is a wonderful and useful tool for collecting a huge amount of data, but the researchers were not able to conduct personal interviews with the participants in the online survey, the problem is that people are afraid of anesthesia in general, whether for teeth or otherwise, and the questionnaire was only answered electronically, and it's consists of fourteen questions, all of which are closed (yes, no, and I do not know).

## 3. Results and discussion:

The percentage of approval to participate in the questionnaire was 100% by the participants, as the percentage of their ages was as follows: 55.6% of those aged 25-34 years, and 22.2% of those aged 35-44 years (the same percentage of those aged 45-55 years was 22.2%). As for the gender percentage of males, it was 44.4% and of females was 55.6%, and all their nationalities were 100% Saudi men and women. As for their professions, they were as follows: male and female students 22.2%, male and female government employees 70%, private sector male and female employees, and business men and women 0%. As for their educational status, it was as follows: He cannot read or write, and holders of primary, intermediate, and secondary certificates, and holders of a diploma and a doctorate degree, their percentage was 0%, as for those holding a university degree, their percentage was 70%, and those holding a master's degree were 20%. As for their responses to the questionnaire participants participated in, they were Their answer is as follows: The first question: Is the anesthesia mechanism necessary for human life during the scientific procedure? Yes 100%. Second question: is it necessary to conduct a survey of the entire area to be worked on? Yes, 60%, and I do not know, both 20%. Question Three: Are narcotic drugs used intravenously in general? Yes, 30%, no, 60%, and I don't know, 10%. Question Four: Are invasive anesthetic drugs widely used in operations? Yes, 18.3%, No, 0%, and I don't know, 81.8%. Question five: the medications used in local anesthesia are the ester group only? Yes, 10%, no, 30%, and I don't know, 60%. Question Six: Anesthesiologists work to reduce the negative effects of anesthesia as much as possible and wake the patient up while preserving his vital functions after surgery? Yes 92.9%, No 0%, and I don't know 7.7%. Question 7: Are

sedation (anesthesia) applications used to provide immobilization and relief to the patient, young children? Yes 89.3%, no 0%, and I don't know 10.7%. Question eight: General anesthesia causes loss of consciousness, relaxes the patient's muscles, and prevents feeling pain during the operation? Yes 91.7%, No 0%, and I don't know 8.3%. Question nine: The method of anesthesia depends on passing oxygen and other anesthetic gases from the lungs into the bloodstream, thus shutting down the patient's consciousness, and then surgical intervention is performed after ensuring continuity of breathing? Yes 55.2% and No 0% 44.8%. Question 10: Local anesthesia is only applied to the area to be operated on? Yes, 89.7%, no, 2%, and I don't know, 8.3%. Question eleven: Anesthesia before short or natural birth by injection into the spinal bag is called spinal anesthesia? Yes, 41.7%, no, 8.3%, and I don't know, 50%. Question 12: Does the patient suffer from memory loss after the operation? Yes 25%, No 41.7%, and I don't know 33.3%. Question Thirteen: Epidural spinal anesthesia is a type of anesthesia in which only the spinal anesthesia method is used? Yes, 32.4%, No, 11.8%, and I don't know, 55.9%. Question fourteen: One of the applications of sedation is the patient moving into a controlled sleep state and relaxing while maintaining his reaction with sedative medications? Yes 63.6%, No 0%, and I don't know 36.4%. (table.no.1) (table.no.2)

Table.no.1: percentage of male and female participants in the questionnaire

| males | females |
|---|---|
| 44.4% | 55.6% |

Table No.2: Participants' views on the importance of anesthesia on human life

| the importance of anesthesia on human life | Yes | No | I don't know |
|---|---|---|---|
| Anesthesiologists work to reduce the negative effects of anesthesia as much as possible and wake the patient up while preserving his vital functions after surgery | 92.9% | 0% | 7.7% |
| Are sedation (anesthesia) applications used to provide immobilization and relief to the patient, young children | 89.3% | 0% | 10.7% |
| The method of anesthesia depends on passing oxygen and other anesthetic gases from the lungs into the bloodstream, thus shutting down the patient's consciousness, and then surgical intervention is performed after ensuring continuity of breathing | 55.2% | 0% | 44.8% |
| Local anesthesia is only applied to the area to be operated on | 89.7% | 2% | 8.3% |
| One of the applications of sedation is the patient moving into a controlled sleep state and relaxing while maintaining his reaction with sedative medications | 63.6% | 0% | 36.4% |

There is a study entitled (Improving Anesthesia Safety in Low-Resource Settings) (11) in 2018, mentioned that there is an increasing realization of surgical conditions represent an important part of the global burden of disease, and that safe anesthesia is essential for safe surgery. There is a massive gap in access to such services today. Sustainable improvement requires a system-based approach, the prerequisite for which is a functioning health care system within a functioning society. The starting point for global access to safe anesthesia is acceptance that Access to health care, in general, should be a basic human right everywhere.

## 4. Conclusion:

The anesthesia mechanism is necessary for human life during the scientific procedure 100%. It is necessary to completely scan the area to be operated on 60%. The use of intravenous anesthetic drugs is 30%, invasive anesthetic drugs are widely used in operations 18.3%, and the drugs used in local anesthesia are ester group only? yes 10%, Anesthesiologists work to reduce the negative effects of anesthesia as much as possible and wake the patient up while preserving his vital functions after surgery 92.9%, anesthesia applications are used to provide stability and comfort for the patient and young children 89.3%, general anesthesia causes loss of consciousness, relaxes the patient's muscles and prevents feeling pain during the operation 91.7%, The anesthesia method relies on passing oxygen and other anesthetic gases from the lungs into the bloodstream, thus shutting down the patient's consciousness. Then surgical intervention is performed after ensuring continuity of breathing 55.2%, local anesthesia is limited to the area in which the operation is to be performed only 89.7%, anesthesia before short or natural birth by injection into the spinal sac is called spinal anesthesia 41.7%, the patient suffers from memory loss after the operation 25%, Epidural spinal anesthesia is a type of anesthesia in which only the spinal anesthesia method is used. Yes 32.4%, Of the anesthesia applications, the patient moves into a controlled sleep state and relaxes while maintaining his reaction to sedative medications 63.6%. Anesthesiologists work to reduce the negative effects of anesthesia as much as possible and wake the patient up while preserving his vital functions after surgery by 92.9%. Anesthesia is applications (anesthesia) used to provide stabilization and relief for the patient, and young children by 89.3% according to the opinion of the participants. The study concluded that the matter It requires continuing to work on continuous and sustainable improvement on a system-based approach, to achieve an effective healthcare system within the community (this is similar to Fawzia Al-Rai's idea as well).

Acknowledgment:

To start with, I would like to Praise God and thank the researchers whose help me to complete this study, and who make the project come to light.

## WORKS CITED

1- Muhammad Al-Sawy Muhammad Mubarak (2003), Dictionary of Scientific Terms in Microbiology and Related Sciences (in Arabic and English), Cairo: Osiris Library, p. 35, OCLC:4769982658, QID:Q126042864

2- Dubinsky RM, Miyasaki J (January2010). "Assessment: efficacy of transcutaneous electrical nerve stimulation in the treatment of pain in neurologic disorders (an evidence-based review): report of the Therapeutics and Technology Assessment Subcommittee of the American Academy of Neurology." Neurology. C. 74 p. 2: 173–6. DOI:10.1212/WNL.0b013e3181c918fc. PMID:20042705.

3- Rasche D, Ruppoldt M, Stippich C, Unterberg A, TronnierVM (2006). "Motor cortex stimulation for long-term relief of chronic neuropathic pain: a 10-year experience." Pain. C. 121 p. 1–2: 43–52. DOI:10.1016/j.pain.2005.12.006. PMID:16480828.

4- thefreedictionary.com> local anesthesia in turn citing: Mosby's Medical Dictionary, 8th edition. Copyright 2009 Archived August 13, 2016 on the Wayback Machine website
5- Healthopedia.com Archived July 29, 2013 on the Wayback Machine.
6- DrLinhart.com Archived December 29, 2014 on Wayback Machine.
7- Local Anesthesia for the dental Hygienist, Logothetis, Elsevier, 2012
8- Howe, Geoffrey: Minor oral surgery, Professor of Maxillofacial surgery and oral medicine - University of London and Newcastle (England) 1994.
9- Alserahy, Hassan Awad, et al (2008), The thinking and scientific research, Scientific Publishing Center, King Abdul-Aziz University in Jeddah, the first edition
10-Al Zoghbi, Muhammad and AlTalvah, Abas (2000), Statistical system understanding and analysis of statistical data, first edition, Jordon- Amman.
11- Fauzia A. Khan, FRCA,* and Alan F. Merry, FANZCA: Improving Anesthesia Safety in Low-Resource Settings. Department of Anaesthesiology, Faculty of Health Sciences, Medical College, Aga Khan University, Karachi, Pakistan; Department of Anaesthesiology, Faculty of Medical and Health Science, University of Auckland, Auckland, New Zealand; and Department of Anaesthesia,Auckland City Hospital, Auckland, New Zealand