

Awareness about Anesthesia amid General Populace

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ABSTRACT

Background: The public consciousness towards anesthesiologist and anesthesia is limited even in urban population. Our cross-sectional analysis highlights this lack of public awareness and discusses possible remedies to overcome these limitations.

Materials and Methods: Surgical outpatient department was screened for 6 months period in King Abdulaziz Hospital. A questionnaire divided into three parts (awareness about anesthesiologist, consent, present surgical experience) was filled out for each patient. The patients on the basis of their answers were classified as aware or unaware, furthermore, source of patient data was analyzed.

Results: Even with an exceptionally low threshold, only 44.86% of population could be categorized as aware, and commonest source of their information was not anesthesiologist but surgeon (56%). 89.7% patients were not aware of contents of pre-operative consent they had signed and further, only 21.4% were aware of anesthesia-related issues. Pain was reported as the most mutual pre-operative fear and post-operative patient concern. 40.2% patients due to lack of pre-operative counseling were not able to recognize the type of anesthesia and thought they had received both general anesthesia and spinal anesthesia. Finally, after explaining the role of anesthesia for surgery, 98.1% patients presented desire to meet the anesthesiologist before if they were to be operated in future.

Conclusion: The awareness about anesthesia is particularly low likely due to low knowledge rates and lack of pre-operative counseling by anesthesiologist. Both patient and anesthesiologist should understand the significance of consent, as it is not only a legal binding but can eliminate pre-operative factitious fears of patients and can improve patient satisfaction towards surgery.

Keywords: Anesthesia, public awareness, pre-operative counseling, anesthesiologist.

INTRODUCTION

General anesthesia is the state produced when a patient receives medications for amnesia, analgesia, muscle paralysis, and sedation. An anesthetized patient can be thought of as being in a controlled, reversible state of unconsciousness. Anesthesia enables a patient to tolerate surgical procedures that would otherwise inflict unbearable pain, potentiate extreme physiologic exacerbations, and result in unpleasant memories^[1].

General anesthesia uses intravenous and inhaled agents to allow adequate surgical access to the operative site. A point worth noting is that general anesthesia may not always be the best choice; depending on a patient's clinical presentation, local or regional anesthesia may be more appropriate^[2, 3]. The worry of awareness under anesthesia has always challenged numerous anesthesiologists and has incited tremendous research. Be that as it may, awareness about anesthesia is still good in spite of the branch developing and growing a century back. Anesthesiology is a fundamental branch of medicine; though, public awareness about anesthesiology appears to be dull beyond big cities.

It is not unusual for an anesthesiologist in KSA to face questions like, is anesthesia a separate medical science?, The weight of research is not only to improve safe anesthesia methods yet in addition to produce public awareness about anesthesia and the part of an anesthesiologist. Maternal and child health programs have improved the public knowledge about option of painless labor; though, these programs have added very little to public knowledge about the primary role of anesthesia and the anesthesiologist.

To quantify anesthesia awareness, we conducted a survey in general surgery outpatient department (OPD) in a World Health Organization approved health center. The study targeted not only to evaluate the patient perspective on anesthesia but also to determine awareness about the involved anesthesiologist. By this study, we were likewise able to highlight the importance of launching national health/anesthesia-based awareness programs, as these programs were found to have significant positive impact on population awareness about labor analgesia. The outcome besides evaluating our current public perspective

also helped us evaluate strategies to improve peri-operative care.

MATERIALS AND METHODS

A cross-sectional study screening surgical OPD was done, over a period of 6 months from November 2016 to March 2017. Patients were scheduled for minor surgical procedures under general anesthesia (GA) or sub-arachnoid block (SAB). The patients were questioned in Arabic or English language using a three-sectioned questionnaire including of pre-operative and post-operative set of questions.

The first set of questions targeted to access the knowledge about “anesthesiologist and what activities he does in the field of medicine.” We also tried to access their source of current knowledge about the anesthesiologist. On the basis of responses, the patients were subdivided into 2 groups, patients answering 3 or more questions of 6 were considered to be aware about the anesthesiologist, and patients unable to answer 3 questions were categorized as unaware. Patients responding wrongly to a question were marked as incorrect, and any answer left blank was also counted as incorrect. Therefore, all answers were categorized as either correct or incorrect for analysis purpose.

The second part of questionnaire was filled prior to discharge of the patient, which was either on the evening of the surgery or the next day morning. These questions assessed the patient’s understanding about the consent for surgery and their level of understanding developed prior to signing this legal binding. The third set of questions assessed experience towards surgery and experience acquired about anesthesia from the current surgery. Prior to surgery, all patients were informed that later they would be questioned about post-surgical experience. Though, it was not disclosed that these question will be related to their anesthetic administration, accordingly, eliminating bias of these patients to become inclined to gain awareness that they otherwise would not have acquired. It was similarly made sure that patients were informed about all aspects of the surgery and consent, as completed regularly for any other patient. The same was done in surgical OPD itself after filling the first set of questions.

The patient satisfaction was assessed on a scale of 0-100, with 0 being totally dissatisfied to 100 being extremely satisfied. Throughout questioning, we tried to separate satisfaction score on anesthesia point of view only (pain, post-operative nausea and vomiting {PONV}, agitation

etc.) rather than surgical consequence. Help of family members was required for extracting this information from the patient, wherever needed.

The study was done according to the ethical board of King Faisal university.

RESULTS

The data acquired was summed up and obtainable as descriptive statistics. Total numbers of similar responses to a question were grouped and were expressed as proportion of total population using Microsoft Excel (2011 ver. for Mac, Microsoft Inc.). For the duration of the 6 months, we incorporated 107 patients scheduled for minor elective surgeries. Of these patients, 70.09% were males and 29.91% were females [Table 1]. Surgeries performed were Inguinal hernia repair, open cholecystectomy, mastectomy, abscess drainage and procedures like toe amputation etc.

Table 1: Patients characteristics

Gender	N	%
Male	75	70,09%
Female	32	29,91%
Education (University degree)		
Yes	60	56,07%
No	47	43,93%
Previous surgery (self or relatives)		
Yes	63	58,88%
No	44	41,12%
Anesthesiologist role		
Aware	48	44,86%
Unaware	59	44,86%

In the first part of survey, of 107 patients, only 6 patients was able to answer the role of anesthesiologist in the operating room correctly. Between very general questions about anesthesiologists, 10.3% were not aware of even the existence of anesthesiologist, and either answered wrongly or did not answer even 1 question correctly. 12.1% only could answer a single question correctly. 17.8%, 20.6%, and 18.7% patients could answer 2, 3, 4 questions, respectively. Patients who could be concluded to be well aware of anesthesia and could answer 5 questions were 15.0% [Figure 1]. Only 6 patients (5.6%) who was a school headmaster and had been operated previously in the city for traumatic fracture was able to answer all the 6 questions correctly. Labor analgesia has gained public awareness, as 56% patients had heard of it or had some idea about it.

Awareness about Anesthesia amid General Populace

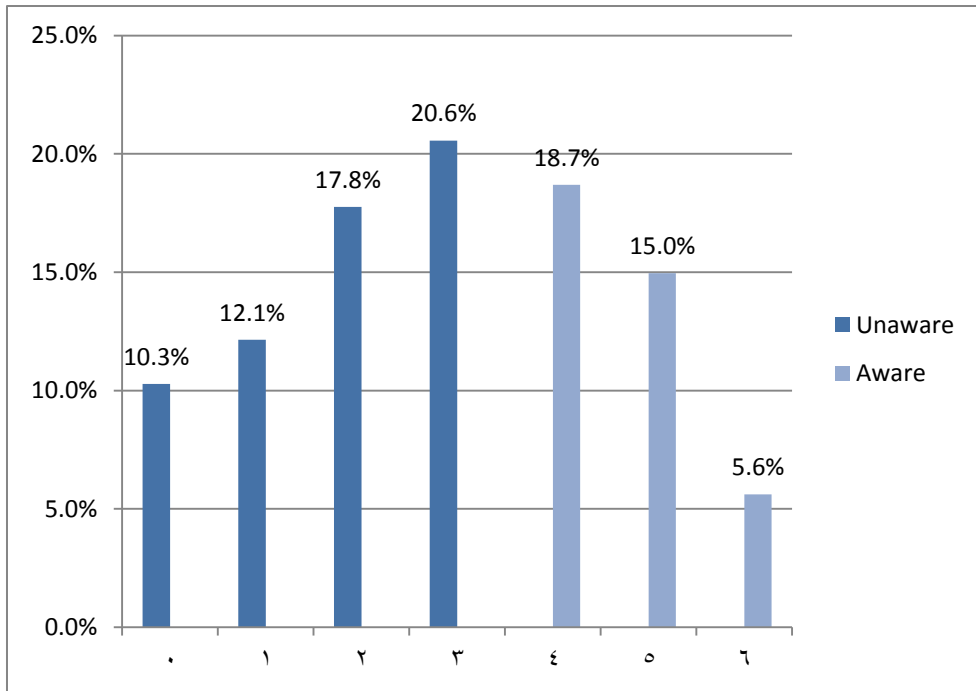


Figure 1: aware-unaware population and number of questions answered.

Patients qualified as aware about anesthesia were further asked about the source of this information. The most common source of knowledge was surgeon himself (56%), followed by 28% patients from previous experience of anesthesia and surgeries, and 10% of patients had obtained knowledge from friends and family anesthesia experiences. Mass media sources like television and newspapers, which are the major sources of information to urban population for health-related awareness, were only contributory to merely 6% of knowledge to aware patients.

Among the procedures completed, 75.7% were performed under SAB and the rest under GA. The post-surgical questionnaire evaluated patient's common apprehensions towards surgery and their actual anesthesia experience. On asking about any worries related to surgery, 74.7% patients said that they completely trusted the doctor and thus are not worried at all. Nevertheless, on asking to provide single

most likely anxiety that they are likely to face throughout surgery was pain in 42.1%, whereas 21.5% were scared of needle prick during surgery.

10.3% expressed fear of not regaining full consciousness after anesthesia, 10.3% expressed fear of extended hospital stay, rest 16% were worried of variable complaints like increased cost of total surgery because of anesthesia drugs and ineffective drug leading to incomplete anesthesia (awareness). Post-surgical possible problems reported by patients were untreatable pain (74.7%), patients who were explained to be given GA were apprehensive about possibility about not waking up well after anesthesia or continued residual effect of anesthesia (14%), 6.5% patients when explained risks of GA were scared of possibility of PONV over other concerns. 4.8% patients did not express any answer and neither acknowledged any practical possibility of post-operative fear [Figure 2].

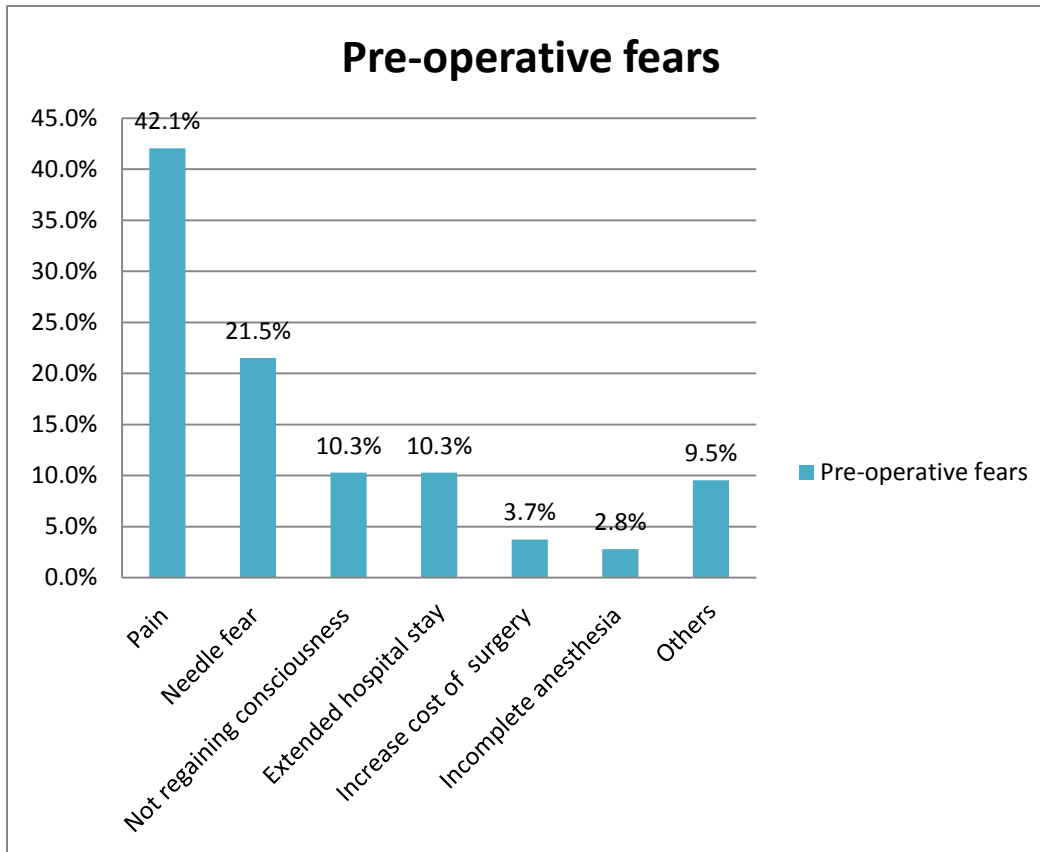


Figure 2: Pre-operative fears reported by patients

On being questioned about the pre-surgical consent, if they understand the possible risks related to surgery and were it explained to them. 89.7% of patients were aware that they were made to sign a paper that had some information about the procedure, which was possibly the consent. On further asking that who explained them the risk involved, the answer was dismal from the anesthesiology perspective. The surgeon had explained the concerns to only 95.3% of those who had signed consent, and no role of anesthesiologist was stated. On evaluating patients on whether they were informed about any risk associated to anesthesia in the consent, only 21.4% answered yes while the rest were completely unaware of such information.

In post-operative period, 46.7% patients reported no uneasiness. Common problems reported were pain (18.7%), vomiting (9.3%), irritation in throat (7.5%), and difficulty in vocalizing (7.5%). 72.9% of patients said that they were almost completely satisfied with overall pre-operative experience. The understanding of such questionnaire showed its awareness value as at the end, on being asked if you are operated another time will you like to meet your anesthetist prior to surgery - the

answer was yes for 98.1% and only 2 patients still didn't approve the need to meet anesthesiologist pre-operatively and maintained the decision to be left on surgeon.

DISCUSSION

By the current study, we assessed how well anesthesiologists are known to the population. Once lack of awareness is quantified, appropriate steps can be recommended on the basis of magnitude of the problem to resolve it.

Patients were not knowledgeable about the type of questions they would be asked about anesthesia at the end of the procedure. This was done to exclude any bias, which would have encouraged the patient in study to be more inclined toward obtaining anesthesia knowledge, which otherwise would have not been completed. Any patient who answered 3 questions from part 1 of the questionnaire was reflected aware.

A low threshold was reserved to contain patients with even a minor idea about anesthesia in aware classification. The aim for keeping this high thoughtfulness to classify awareness was caused by lack of healthcare-related information obtainable in rural areas.

On screening many of the patients listed had not completed education. As there are no incorporated programs promoting anesthesia-based knowledge, particularly patients coming from rural areas, notwithstanding this low threshold, we found a low awareness. This difference was possibly because the population included was from a city where level of education is higher.

In a similar study accompanied in United Kingdom, about 80% of involved population was able to correctly answer the role of anesthesiologist^[4]. Improving the education level of population can increase these outcomes^[5, 6], which are reflected by studies done on KSA population. Unfortunately, for the information about anesthesia, most patients reported the surgeon as the only source, when this must have been the anesthesiologist's field. Mass media sources have to be supported by making educational documentaries on anesthesia and its role to make public aware and therefore helping in making wise choices when being operated. A promising part found in current survey is that 56% population was aware or had heard of painless labor. This highlights the part of successful government programs on maternal and child health, which does provide labor-related information^[7, 8].

A simple and economical process is to update these patients on the anesthesia aspects and establishing educational programs in these health centers or camps. The target audience for these awareness programs should not only contain general population but also general practitioners and paramedical staff. These health professionals are the first contact for patients in rural health system, and information about anesthesia provided by them is likely to have more impact. These planned awareness programs ought to similarly encourage targeted audience to more spread information to associates making awareness programs effective and economical^[9].

Consent is a medico-legal binding between patient and anesthesiologist; both patient and anesthesiologist need to understand its implications. For majority of patients, it was a paper signed by them, which was a formality in form of paperwork required prior to surgery. 10.3% patients either did not sign it or did not remember signing.

The authentication of consent appears to be a universal problem as Brezis et al. also reported that more than 50% patients did not

remember any information related to consent^[10]. This is a result of carelessness of the involved doctors and amount to legally punishable professional neglect. Anesthesiologist need to realize that explaining the content of the consent is significant^[11], and surgeons perhaps will fall short in explaining anesthesia-related likely complications, as seen in current study.

The quality of explained consent may be inferred from the fact that nearly 40% patients assumed that they were given both regional and general anesthesia. A well-explained consent may likewise eliminate theoretical worries like not waking up after surgery and can also reassure patients that anesthesia is a requirement for surgery and is not an added cost process. Pain has been found to be most common pre-operative cause of anxiety and fear of patients^[12, 13], therefore, while informing content of consent, a possible note about post-operative pain administration can have important part in eliminating worry. Patients in rural areas do not see a doctor-patient relationship as a legal binding not like in major cities. They appear to completely trust the treating physician and therefore do not question much. The same attitude is responsible for 72.9% patients being completely satisfied after surgery, despite more than half of the patients having reported at least one problem in post-operative period.

On the positive side, the patients were asked whether they would like to see their anesthesiologist prior to next surgery, 98% replied as yes. It is a human nature to be inquisitive; a patient experiencing surgery will be certainly more concerned to know what is likely to happen to him. It is the lack of communication from the side of anesthesiologists that current patient knowledge levels are dull. Simple determinations like educating patients can make things different.

CONCLUSION

This cross-sectional study is the first step towards quantifying problem neglected by us. Rural population is totally unaware that anesthesiology has evolved into a specialization in modern medicine and that it plays a significant part influential surgical outcome. Inferences from current study highlight neglect on anesthesiologist's attitude towards interacting with patients. Role of pre-operative consent is important in making

patients understand the role of anesthesiologist and anesthesia. It similarly eliminates worry of patients towards surgery. The anesthesiologist ought to share equal responsibility of explaining terms of consent and possible dangers involved in surgery. Mass media sources and government health education programs play an instrumental role in achieving the above targets, and their success is highlighted by increased awareness about analgesia.

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