

Preference of General Anaesthesia or Regional Anaesthesia for Appendicectomy Among Medical And Paramedical Staff in A Rural Hospital

Krishan Lal Garg¹, Manju Bala², Priyanka Bansal³,
K C Khanduri⁴, Anee⁵, M.L. Khatri⁶.

¹Professor of Anaesthesia, ²Assistant Professor, ³Assistant Professor, ⁴Associate Professor, ⁵Senior Resident, ⁶Associate Professor. Department of Anaesthesiology, Faculty of Medicine and Health Sciences SGT University, Budhera, Gurgaon, Haryana (India)

Abstract: We surveyed seventy medical and paramedical personals at SGT Medical College Hospital Budhera, Gurgaon, Haryana (India) to know their preferred technique of anaesthesia for appendicectomy surgery and to determine the frequency of various reasons of preference of a particular technique. Participants were interviewed according to a structured questionnaire and allowed to select one option. Forty three participants expressed their preference for Regional Anesthesia (RA). Most common reason for their preference was safety associated with RA. Remaining twenty seven participants showed their preference for General Anaesthesia (GA). The main reason for their preference for GA was fear of remaining awake under regional anaesthesia. This survey may help to promote patient centered care in department of anaesthesiology.

I. Introduction

In perioperative period, anesthetists have multiple options with regard to the choice of anaesthesia method, monitoring and use of drugs to achieve the desired outcome. The choice of anaesthesia depends on the patient's underlying disease, lab findings, general condition, surgery type and duration. Several studies have reported that patients generally prefer to be informed and involved in the decision making process.¹⁻² Some patients have factors that could influence the choice of anaesthesia, but some have no factors. Recently anesthetists have made an effort to involve the patients and their families in the decision making process regarding anaesthesia options. This is especially useful in patients having no medical factor which can influence the choice of anaesthesia for a particular surgery. Few studies have been done to know about patient's preference for a particular type of anaesthesia.

Although regional anaesthesia is considered to be the most suitable anaesthesia for appendicectomy and it has been increasingly preferred by both surgeons and anesthetists but some patients prefer general anaesthesia if they are given choice between regional and general anaesthesia. As medical and paramedical staff can influence the patients choice of anaesthesia, so our study aims to determine the current preference of paramedical or medical staff for a specific anaesthesia technique as it can influence the patients preference indirectly.

II. Material And Method

This prospective cross sectional survey was completed over a period of six months in SGT Medical College Budhera. Seventy participants of either sex of ASA grade I or II, aged between twenty to seventy years were surveyed for their preference between general and regional anaesthesia if they were to undergo appendicectomy. Only the participants having some prior knowledge about the procedures had been included in the survey. The participants having any health related factor which could influence the choice of anaesthesia were excluded from the survey. Although the participants had prior knowledge about the procedure but for standardization, all participants were asked to read an information sheet explaining the potential advantages and disadvantages associated with regional and general anaesthesia and were allowed to ask questions on anything they were curious about to their anesthetist. In order to optimize the survey quality and to exclude variability, a standard definition and explanation for both regional and general anaesthesia was given. After this they were interviewed according to a structured questionnaire designed to assess the reasons of preference of a particular method or refusal of other method. The data was analyzed by R foundation for statistical computing.

III. Results

Seventy participants answered the questionnaire. Of all participants, 61.42% (n=43) preferred Regional Anaesthesia (RA) and 38.57% preferred General Anaesthesia (GA). Only anesthetist and surgeons significantly preferred RA. Other participants (MBBS Interns and OT staff) preference for a particular

anesthesia technique was not significant .Hence they had given almost equal preference to both techniques. (Table A)

Table: A

Profession	RA	GA	Total
Surgeons & anesthetist	8 (88.89%)	1 (11.11%)	9
MBBS interns	26 (56.52%)	20 (43.475)	46
OT staff	9 (60%)	6 (40%)	15
Total	43 (61.42%)	27 (38.57%)	70

Forty three (61.42%) participants preferred RA. The most common reason for their preference was feeling safe under RA as compared GA. Other reasons were fear from GA due to its associated complications, ability to watch the procedure under RA, feeling that they can get better post operative pain relief under RA . All these reasons had statistically significant effect with chi square value of 14.373 and p value of 0.006196.

Reasons for preference of RA

Reasons	n	%
Feel safe as I remain conscious.	34	79%
I am afraid of GA as I think it can lead to complications.	21	48.8%
Can watch the procedure	16	37%
Can get better post op pain relief under RA	20	46.5%
Other reasons –less expensive	11	25.5%

Twenty seven (38.57%) participants preferred GA. The most common reason of their preference was fear of awareness under RA, as they did not want to see what is happening around them. The other reasons were getting better post operative feeling after GA, fear of having paralysis or paresis after RA, local pain at injection site, previous bad experience with RA. All these reasons were statistically significant with chi square test value of 18.182 and p value of 0.001137.

Reasons for preference for GA

Reasons	n	%
I like to be fully unconscious	11	40.7%
RA can cause paralysis/paresis	7	25.9%
I do not want to see what is happening around me	23	85.1%
Post op feeling after GA is better	9	33.3%
Other reasons	5	18.51

IV. Discussion

Matty et al found that patients do not really understand the advantages, disadvantages and risk of anaesthesia.³ So they remain indecisive about what type of anaesthesia is proper for their surgery. Hence their preference for a particular type of anaesthesia is greatly influenced by anesthetists, surgeons, other health care personals, family, friends and previous anaesthetic experience. Many studies have been done on RA, its conduct and patient’s satisfaction regarding RA world over, but fewer data is available about the preference of health care personals for a particular anaesthetic method. Majority of patients’ who come for a procedure are first seen by surgeons or physicians being their primary care provider and anaesthesia personals only see them when they are planned for the procedure. The surgeons have a major impact on patient’s preference and it does influence patient’s choice regarding anaesthesia technique. Along with surgeons or physicians, paramedical staff may also influence the patient’s preference. So in our study we surveyed seventy health care providers including surgeons and anaesthetist for their preference about a particular type of anaesthesia for appendicectomy and reasons for preference.

According to Oldman et al the choice of anaesthesia technique was influenced by subspecialty and by the surgeon’s perception about the anaesthesia.⁴ In our study 88.89% surgeons preferred RA over GA for appendicectomy procedure. Similar to our study Rhee et al also found that 84% of surgeons preferred RA for their patients . Resistance to a particular technique is observed among surgeons. If a patient’s surgeon is against a specific technique, the anesthetist will not be able to persuade him or her about the technique. No study is available about the preference of paramedical staff and MBBS Interns for a particular anaesthesia. We found that 56.5% Interns and 60% paramedical staff preferred RA and 43.47% intern and 40% paramedical staff preferred GA for the same procedure. It means RA despite being the preferred method for appendicectomy among most anesthetists and surgeons, paramedical staff and interns are still choosing RA and GA equally. They may influence the choices of patients.

We also inquired about the reasons for preference of a particular technique. In RA group, maximum number of patients preferred it because they feel safe under RA (79%) as compared to GA. Other participants chose RA for better post op pain control (20%) and cost effectiveness (11%). Pelinka et al conducted a similar study among orthopedic patients.⁵ In this study they showed that most orthopedic patients preferred regional anaesthesia for arthroscopic procedures because they were curious about the surgery. Other reasons for preferring RA were fear from GA and postoperative pain control.

In the GA group, the main reason for their preference was that they do not want to see what was happening around them (85%) or they want to remain unconscious during the procedure (40%). In a study conducted by Salam et al, they found that more female participants as compared to males refused RA due to backache and fear of remaining awake during the procedure.⁶ Rhee et al showed that 36.8% of their participants had a fear of remaining awake whereas 6.35 % had a fear of backache.⁷ In another study by Dove et al, they concluded that the fear of pain and seeing surgery were more prominent among female patients.⁸ Ahmed and Afshan also observed that there was a higher refusal rate for regional anesthesia among female patients.⁹ We could not study the effect of gender on choice of anaesthesia as we did not have sufficient sample size of female participants.

In our study we conclude that, our participants were aware of both techniques of anaesthesia but except anaesthetists and surgeons, they chose both RA and GA equally. The main reason for preference of GA in appendicectomy surgery was fear of remaining awake during surgery under RA. This problem can be solved if we supplement some sedation to RA to break patients connect with surroundings during the procedure. By this more participants can be convinced to opt RA for their surgery.

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