



ANAESTHESIOLOGY: AN UNWRAPPED FRATERNITY OF MEDICINE...?

Anaesthesiology

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ABSTRACT

INTRODUCTION: Awareness about anaesthesiology and anaesthesiologist is surprisingly low in developing countries like India. The present study was designed to assess knowledge and perception about anaesthesiologist and anaesthesia fraternity amongst general population of central India visiting tertiary care centre.

MATERIAL AND METHODS: 300 individuals visiting preanesthetic clinic were interviewed using questionnaire consisting of questions about anaesthesiologist and anaesthesia fraternity.

RESULTS: Poor knowledge was noted about anaesthesiologist, his role in perioperative period and his contributions outside the OT. Only 34.74% patients knew that anaesthesia is given by anaesthesiologist.

CONCLUSION: Anaesthesia fraternity ought to work hard to acquire public recognition for their important contributions in the field of medicine.

KEYWORDS

Anesthesiology, Anaesthesiologist, Public awareness, Questionnaire

INTRODUCTION

Over the years anaesthesia has achieved peaks and heights of success. None of the hospital corner has remained untouched by anaesthesia services e.g. operation theater (OT), labor room, interventional radiology, ICU, casualty etc. Still image of anaesthesiologist is unclear in minds of lay persons and hence, no due recognition is received by anaesthesiologist. The colleagues from other medical and surgical faculties are also unaware about the efforts taken by the anaesthesiologist [1]. Not only in India but the public knowledge of anaesthetic practice and attitude towards it, is limited in other developing countries [2]. Research in anaesthesia specialty should not be directed towards only developing safe anaesthesia techniques but also to create and raise public awareness about anaesthesia specialty and multitasking role played by an anaesthesiologist in patient well-being [3].

The present study was planned to study knowledge or perceptions of lay persons about anaesthesia fraternity, the anaesthesiologist and also to know fears towards surgery and anaesthesia.

MATERIAL AND METHOD

This prospective cross sectional study was conducted at a central India's tertiary care teaching hospital on 300 adult patients and their accompanying relatives of age ranged from 18 years to 70 years, reporting to preanesthesia outpatient department (OPD) referred from various surgical OPDs over a period of six months for preanesthetic evaluation.

A questionnaire comprising of 19 questions (Annexure 1) prepared in local (Marathi) and English language was given to study individuals. Each question was verbally explained by paramedical students. The response of individual for each question was ticked in questionnaire by the paramedical student.

The person who were employed in hospital, psychiatric patients, chronically ill patients, student enrolled for medical, paramedical and nursing courses, persons who had undergone surgeries for more than once or having history of repeated hospitalization and history of prolonged hospital stay were excluded from the study.

Questionnaire (Annexure 1)

Our questionnaire consists of 19 questions, out of 19; eight questions were in the form of yes or no or not known. 10 questions were in form of direct answer and first question was related to reason for coming to hospital.

Analysis of data

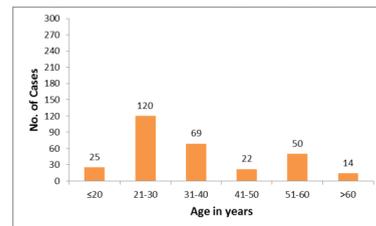
The data was analyzed on SPSS23. Using chi square, P value was

derived on GRAPH PAD and open epi info software. P value less than 0.05 is considered as significant.

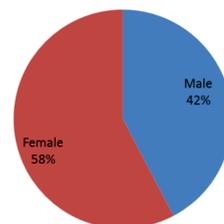
RESULTS

Demographic characteristics of 300 participants were analyzed and shown in graph number (No.) 1, 2 and 3.

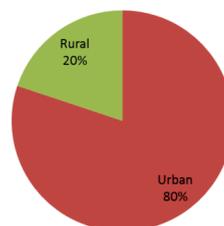
Graph No. 1: Age distribution among study population



Graph No. 2: Showing gender distribution of study population

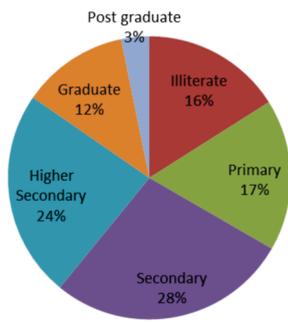


Graph No. 3: Showing residence wise distribution of study population



Participants were also analyzed according to literacy levels (graph no. 4). Although study population was comprised of illiterate (16%) to postgraduate (only 3%), 51% individuals were educated till higher secondary school.

Graph no. 4: Educational status of study population



In present study, people of various occupations were involved. 40% of the population was house wives and rest of the study population was either skilled laborer (24%) or unskilled laborers (29%) and 7% were students. 30.6 % had given history of previous surgery . Female and urban participants could answer more number of questions correctly from questionnaire although difference was statistically insignificant (value >0.05). Response to questions like don't know was more common in illiterate participants.

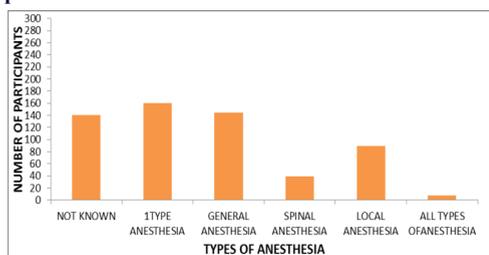
Almost 85.90% study population came to PAC OPD as they were told by surgeons. 92% of population agreed to necessity of anesthesia for surgery but only 34.74% patients knew that anesthesia is given by anesthetist. Only 31.41% said that surgeons and anesthetist are different doctors. Table no.1 is revealing knowledge of participants about anesthetist, his education, his perioperative role as well as table no. 2 revealing level of awareness or knowledge of study population about anesthesiologist' role outside the OT.

Table 1: Revealing knowledge of participants about anesthetist, his education, his perioperative role

Variables	Percentage of population
Anesthesiologist administers anesthesia for surgery	34.74%
Anesthesiologist is MBBS ,MD Doctor	32.3%
Anesthesiologist monitors during surgery	27.56%
Anesthesiologist cares in post-operative period	28%
Anesthesiologist is as important as surgeon	14.74%

Nearly half of the population knew at least one type of anesthesia (53%), (Graph5).

Graph no. 5: Showing knowledge about types of anesthesia in study population



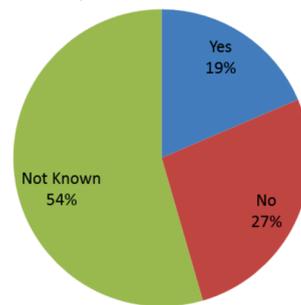
Commonest fear about surgery and anesthesia was pain during procedure (48.85%), (Table no.3).

Table 3: Commonest fear about surgery and anesthesia

Fears	Percentage of population
Pain during surgery and while giving anesthesia	48.85%
Awareness during surgery	9.62%
Prolonged unconsciousness	7.5%
Death during surgery	3.21%
No fear	5%

Only 19% of study population was aware that co-morbid condition like hypertension, diabetes mellitus can adversely affect anesthesia outcome. Graph no. 6 showing knowledge of study population about co morbidity and anesthesia outcome

Graph No. 6: Co-morbidity and anesthesia outcome



Source of information for maximum participants was mainly surgeons (Table no. 4).

Table 4: Source of information amongst study population

Source	Percentage of population (%)
Told by surgeons	66.67 %
Told by relatives /friends	15.38 %
Had Heard it	13.46 %
News paper/ TV	3.85 %

Significant correlation was observed between educational status and knowledge of an individual that whether anesthetist is MBBS, MD doctor (p<0.001), and the knowledge about anesthetist is a person who gives anesthesia (Table no. 5) other facts about anesthesia.

Table 5: Correlation of educational status and knowledge about anesthesia

Variables / Response	High Education (n =117)	Low Education (n=135)	Illiterate (n =48)	p-value
Anesthetist anesthetizes patient before surgery (n= 104)	76	25	3	<0.001 (HS)
Qualification of anesthetist (MBBS,MD) (n= 97)	64	30	3	<0.001 (HS)
Comorbid conditions affect anesthesia outcome adversely (n= 57)	39	16	2	<0.001 (HS)
Role of anesthetist outside OT (n = 37)	31	6	0	<0.001 (HS)
Knowing at least one type of anesthesia(n = 160)	92	65	12	<0.01 (S)

HS=Highly significant , S=significant

Although, previous exposure to surgery was found to improve one's perception significantly about at least one type anesthesia but their knowledge about intra and post operative role of anesthetist and his importance was not found to be improved significantly.

Table 6: Knowledge about intra and post operative role of anesthetist

Variables/ Response	Undergone Surgery (N=92)	Never Undergone (N=208)	p value
Anesthetist gives anesthesia for surgery (n= 104)	38	66	0.1(NS)
Postoperative role of anesthetist (n = 84)	22	62	0.2(NS)
Knowing at least any one type of anesthesia(n = 160)	91	69	<0.001 (S)
Anesthetist are as important as surgeon (n= 44)	10	34	0.2 (NS)

DISCUSSION

In present study, literacy rate was 82.69% which is little high than overall literacy rate of India i.e. 74% (2011 census figure). Although literacy rate was high, overall knowledge or awareness towards anesthesia specialty was quite depressing. This may be because in India literate means just one who can read and write but this is not sufficient to develop awareness about health issues. However, similar to other studies[1],[3],[4] we also observed that improving educational

status of individual raises one's perception about health issue or specialty.

Almost the entire study population admitted that anesthesia is must for surgery but quite low percentage i.e. 34.75% could say that anesthesia is given by anesthetist. This in contrast with other studies carried out in Indian population recently which quoted higher percentage (85.5%) [1] but 10 years back Naithani et al [5] found 42.67% knew that anesthesia was given by anesthesiologist.

In present study, only 32.05% people could identify anesthetist as physician. In western countries, like in UK 80%, USA 87.95% almost 2 decade ago, higher percentage of people identified anesthetist as specialized doctor and also, majority of patients were aware that anesthesiologist stays with patient during surgery and takes care of patient's vitals [6,7]. This could be because UK and USA are developed country with high literacy rate and also because of high interaction between anesthetist and patient during preanesthetic check up [8]. On the contrary, recent study carried in southern India at teaching hospital observed that only 12% population were aware that anesthetist anesthetizes and monitors patient throughout the procedure. Our country being a developing country, this figure is not quite surprising. However, study conducted in 2004 at CMC, Vellore, a major tertiary care center serving patients from all over the country observed that 89% persons could say that anesthetist is a qualified doctor. Also, their ideas about role of anesthesiologist in intraoperative and postoperative period were quite clear. [9]

Only small part (14.74 %) of study population agreed that anesthesiologists are as important as surgeon. However Veeramachaneni et al [1] observed that almost 50% population in his survey answered that anesthetist and surgeon are equally important. This can be contributed to high level of education amongst their study population.

In spite of important contributions of anesthesiologist in ICUs, casualty, trauma centre and pain clinic, only 12.18% of the patients were aware about the role played by anesthetist outside the OT which was extremely disappointing. This lack of knowledge has been found in earlier studies [9,10] and there has been no improvement over the years as reported in recent studies like by Naithani et al [5], Uma and Hanji [11] and Mathur et al. [12].

50% of study population could tell at least one type of anesthesia and almost all participants who were undergone surgery could tell one type of anesthesia which they might have received for their own surgery. Better knowledge about various anaesthesia techniques and their possible complications in various conditions of patients may reduce the number of medico legal litigations [12].

In western studies awareness under anesthesia and failure to wake up were the biggest anesthesia concerns among patients as reported by Veeramachaneni et al [1] but in Indian population fear of feeling pain during surgery was the biggest concern/fear [9, 2], yet only smaller percentage of population knew that anesthetist provides pain relief during and after surgery, showing their poor knowledge about the role of anesthesia and anesthesiologist.

Source of whatever information our study population had was surgeon as he is the treating doctor for the patient and also surgeon interacts with patient since beginning till the discharge and later on also [9,12]. Thus, education of other health care professionals may help in improving the image of anesthesiologist in mind of general population [3]. This may be achieved by publishing papers in their journals and by participating in multidisciplinary hospital committees [12].

CONCLUSION

Anesthesia specialty needs to implement effective measures to gain deserved acknowledgement for their incredible contribution in medical fraternity which strictly recommends

- Introducing them self as an anesthesiologist, as perioperative physician and as pain specialist to patient and his relatives during preanesthetic check up and during taking rounds of Postanesthesia care unit or surgical ICU.
- Writing articles about specialty and its availabilities in Health bulletin of daily news paper
- Conducting Health interviews at TV CHANNEL OR RADIO

- BLS TRAINING programs on mass scale
- Displaying informative flex charts of anesthesiology outside surgery OPD and PAC OPD and waiting room of Operation Theater.

ANNEXURE-1 : QUESTIONNAIRE

1. Reason to visit hospital
2. Reason to visit PAC OPD(103) a) surgeon told, b) PAC, c) Don't know
3. Is Anaesthesiologist and Surgeons are different doctors?(Y/N/Don't know)
4. Have you ever undergone surgery?(Y/N)
5. Is Anaesthesia required for surgery?(Y/N/Don't know)
6. In operation theatre who gives Anaesthesia for surgery? A) surgeon, b) anaesthesiologist, c) nurse, d) Don't know
7. Who is Anaesthesiologist? A) MBBS, MD doctor, B) Nurse, c) Technician, d) Don't know
8. Where does Anaesthetist work? A) OT, b) ICU, c) OPD, d) ward, e) Don't know
9. What is the role of Anaesthesiologist during surgery? A) puts patient to sleep, b) numbs the operation site, c) takes care of blood pressure, pulse and respiration. d) helps the surgeon, e) Don't know
10. Which are the types of anaesthesia you know? A) general anaesthesia, b) spinal anaesthesia, c) local anaesthesia, d) Don't know e) All of above
11. Do you know that anesthesiologist stays with patient during surgery? Y/N/Don't know
12. Do comorbid conditions like diabetes and hypertension affect anesthesia outcome adversely? Y/N/Don't know
13. Do you know that anesthesiologist takes care of patient in postoperative period? Y/N/Don't know
14. Outside OT, what are other contributions of anesthesiologist you know? a) Labour analgesia b) ventilatory management c) ICU d) pain clinic cl e) Basic life support training
15. Are you afraid of surgery? Y/N/Don't know
16. Which are your fears about surgery? a) pain during surgery b) awareness during surgery c) Death d) No fear
17. Which are your fears about anesthesia? a) may not come out of anesthesia b) backache c) injury d) awareness e) needle prick f) death g) Don't know h) No fear
18. Who has given you all this information? a) had heard about it b) Friend/relative c) surgeon d) TV or news paper etc.
19. Is anesthesiologist equally important as surgeon? Y/N/NK N = NO, Y = YES, OPD = OUTPATIENT DEPARTMENT

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