

Anaesthesiology and Anaesthesiologist among General Population- A Cross-Sectional Observational Study

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Abstract:

BACKGROUND: Anaesthesiology and Anaesthesiologists as a subject and specialist are less recognized by the common patient population as reported with previous studies in few parts of the country and it is perceived that illiteracy is a major reason. **METHOD:** This cross sectional observational study after Institutional Ethical clearance was conducted at Indira Gandhi Institute of Medical Sciences, Patna among 400 participants (n=400) undergoing various major surgery and had no history of previous surgery or anesthesia. The data gathered from the questionnaire was subjected to statistical analysis using SPSS, IBM version 20.0. **RESULT:** Study showed that 67% were literates and 33% were illiterates. 77% had some knowledge about the surgery they would be undergoing whereas 44% of the study population had no idea about Anaesthesiologists. 28% believed that they administered gases and drugs; 17% perceived them to be an assistant of a surgeon and 1% thought them to be technicians. Only 10% had perception of their major role in anaesthetizing and monitoring. **CONCLUSION:** The study subjects were evaluated through a questionnaire before pre-anaesthetic check-up which revealed that illiteracy was not the only reason behind their ignorance about the specialty and the specialists. It was concluded that anaesthesia practice in backdrop was a major hurdle responsible for poor recognition of both “anaesthesia” and “anaesthesiologists”. Frontline approach and direct communication with the population is needed in order to create awareness regarding the role of an Anaesthesiologist.

KEYWORDS- Anaesthesiologist; Perception; Cross-sectional observational study

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I. Introduction

First anaesthesia was given by W.T.G Morton in the year 1846, 16th October (ETHER DAY). This was put to disrupt by intellectuals and then doctors of the society as W.T.G Morton tried to conceal “ ETHER” from society in the name of “LETHON”. In following more than 150 years Anaesthesiology developed in slow pace less known and recognized by common people and patient. In last two decades Anaesthesiology has come up in a strong way in Technique of Anaesthesia, intensive care, pain and palliation measures, labour analgesia that lead to development of surgery and allied branches, but not its own. Still in the developing countries the Anaesthesiologist although being the pioneer and peri-operative physician, work behind the curtain and less known by the patients and general population.

II. Material /Methods

• With permission of the Ethical Committee, a cross-sectional observational study was conducted at the Tertiary care centre, Indira Gandhi Institute of Medical Sciences, Patna from among 400 patients coming in Pre Anaesthesia check up clinic put up for different types of major surgery. They were subjected to answer a list of questionnaire before pre-anaesthetic evaluation.

• Period of study – from January 18 till June 18

The whole study was conducted under the heading:

- Demographic Data
- Knowledge regarding nature of surgery
- Knowledge regarding Anaesthesiologist
- Perception regarding Anaesthesia and its technique
- Knowledge of complication/concerns during Anaesthesia
- Knowledge about post-operative care and pain relief after surgery
- Source of knowledge about Anaesthesia and Anaesthesiologists

Inclusion criteria

- Adults in age group -18 to 55 years
- ASA grade I and II
- Undergoing elective major surgery
- Willing to participate and had given written informed consent for this survey

Exclusion criteria

- Age group <18 years and >55 years
- ASA grade III and above
- Patient posted for emergency surgery
- Patient with previous exposure to surgery or anaesthesia were excluded
- Mentally challenged patients or those with psychiatric disorders
- Those who did not understand Hindi or English

Questions were asked orally and marked by Anaesthesiologist himself/herself.

Statistical analysis

- Questionnaire was collected and subjected to statistical analysis(SPSS version 20.0)
- Sample size was calculated using Epi Info software
- Analysis was done in terms of percentage by using chi-square test and correlation studies.

Validation:

- In order to promote understandability in local language, linguistic translation of original version was done as per forward –backward translation protocol.

III. RESULT

A total of 400 patients were given questionnaires and there responses analyzed.

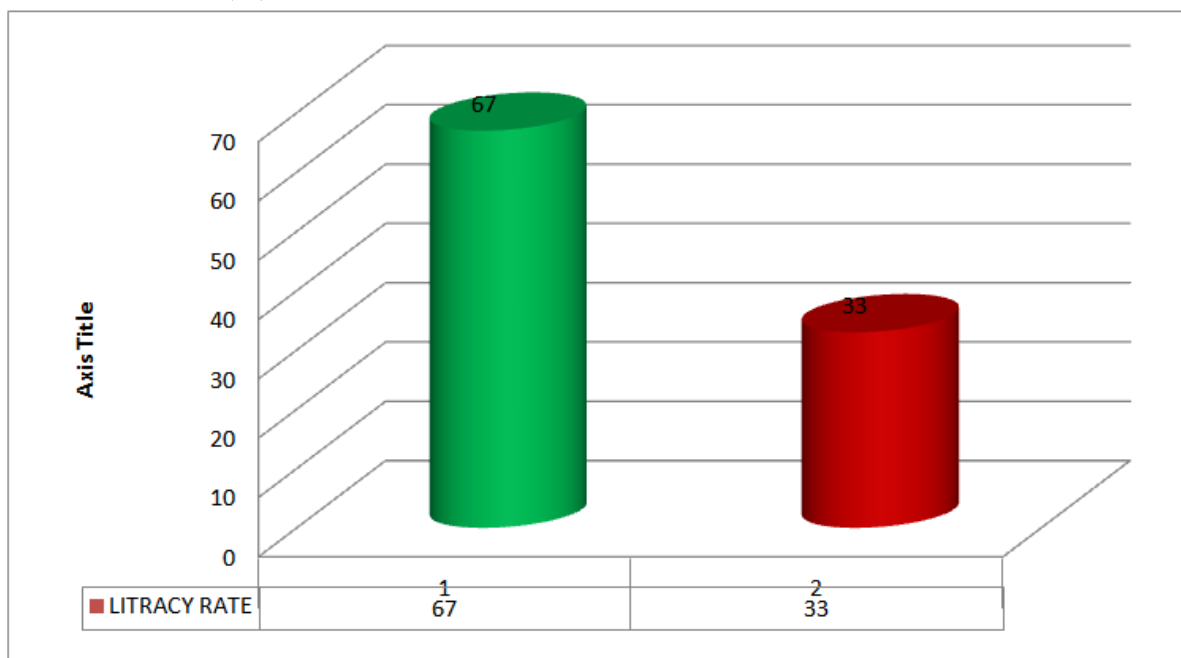
AGE-Mean age group and SD was 38.6±15.8 yrs

Sex-Among study population 270 were males and 130 were females.

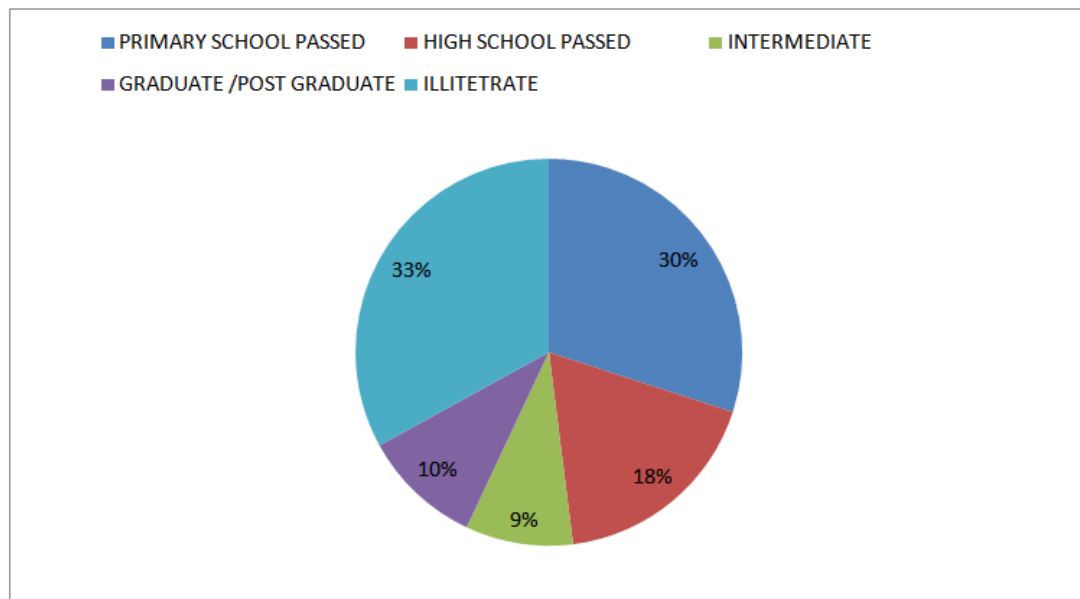
Literacy rate (%)

- 67% of the participants were literate while 33% were illiterate.
- Of the educated 30% had completed Primary school, 18% had completed High school, 9% Intermediate and 10% were graduate/post graduate

LITERACY RATE (%)

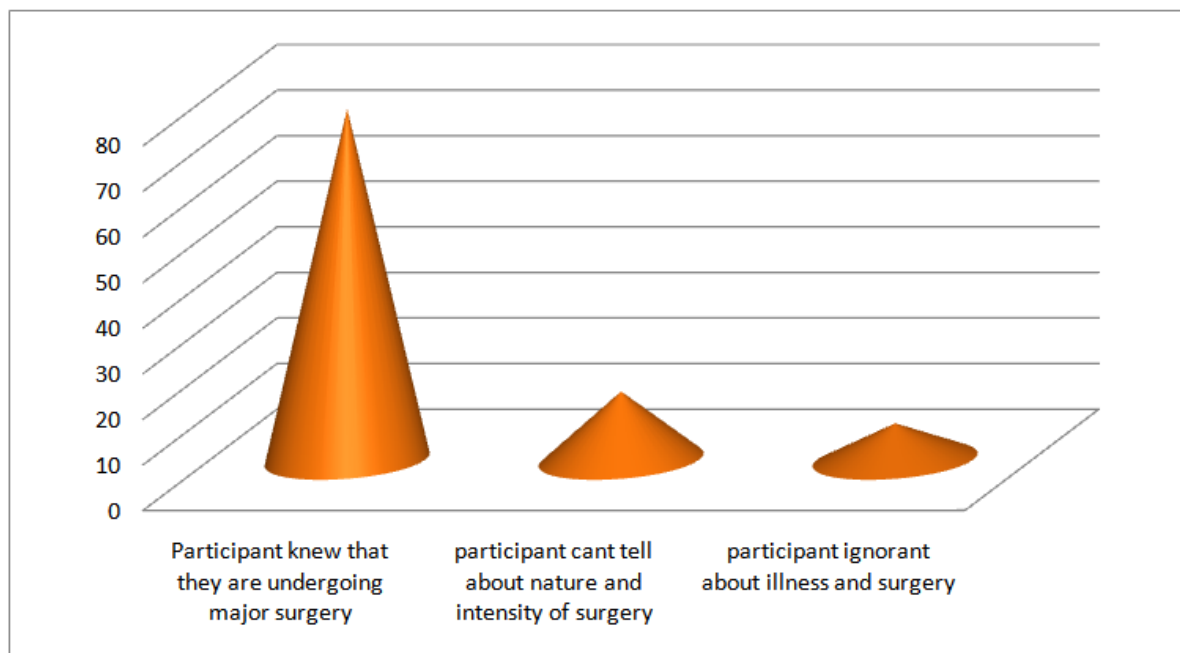


LITERACY



Knowledge regarding nature of surgery

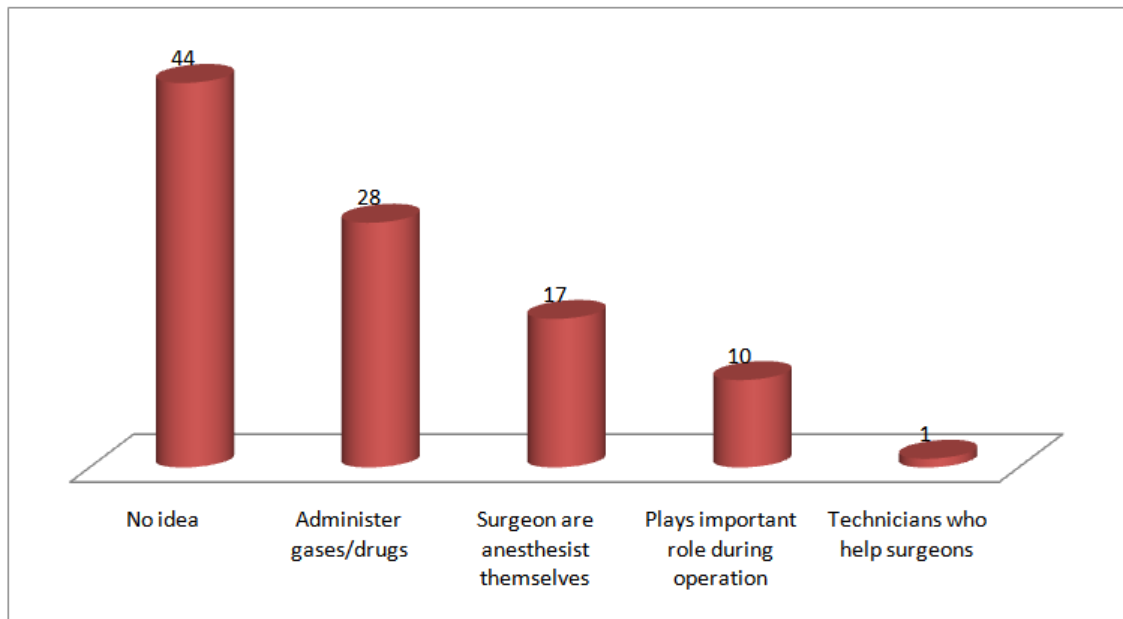
- 77% participants knew that they were undergoing major surgery
- 15% participants knew they have to undergo surgery but cant tell about nature and intensity of surgery
- 8% of the participants were ignorant about illness and surgery



Knowledge regarding anaesthesiologists

When participants were asked about the role of Anaesthesiologists in OT and their presence in OT

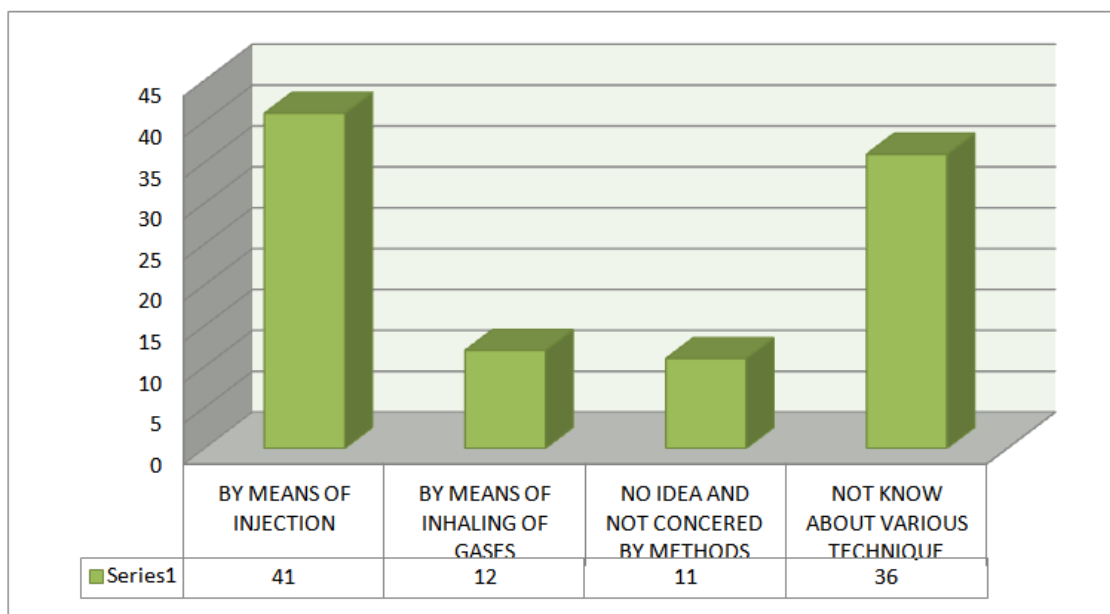
- 44% had no idea
- 28% answered they administer gases/drugs
- 17% participants answered they are surgeons itself and surgeon are behind this work
- 10% answered they have important role in Anaesthetising and monitoring during operation
- 1% answered they are technicians who help surgeons or help in OT proceedings



Perception regarding anesthesia technique

Regarding Their Methods Employed To Give Anesthesia

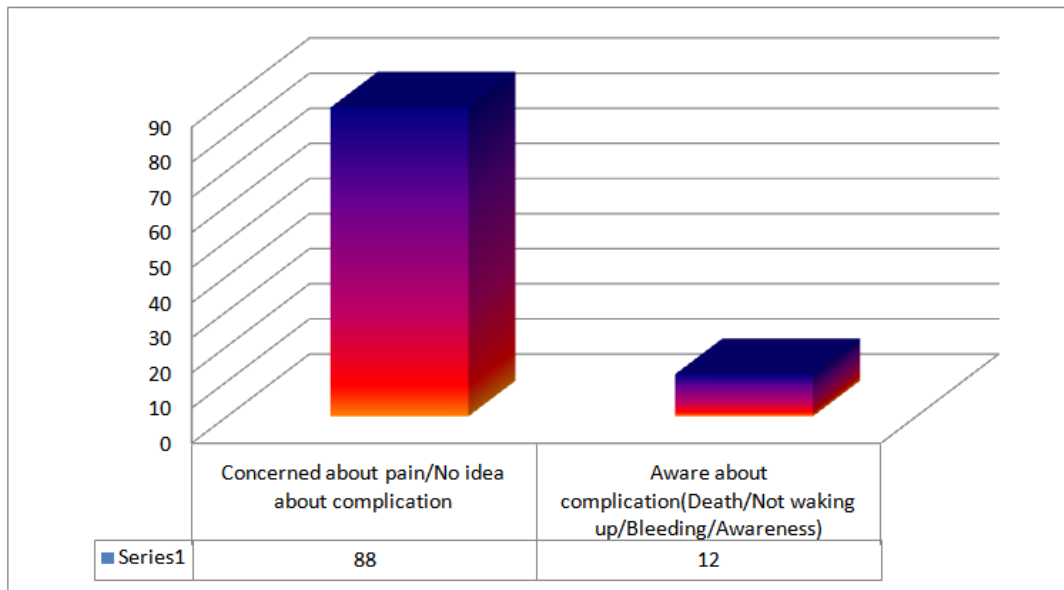
- 41% answered by means of injection
- 12% participants by means of inhaling gases
- 11% participants had no idea and were not concerned by methods
- 36% did not know that there are various techniques



Knowledge of concerns/complications during Anaesthesia

➤ 88% were concerned about pain during surgery but they had no idea about complications of Anaesthesia and out of remaining 12% participants who were aware about complications; the major concerns were:

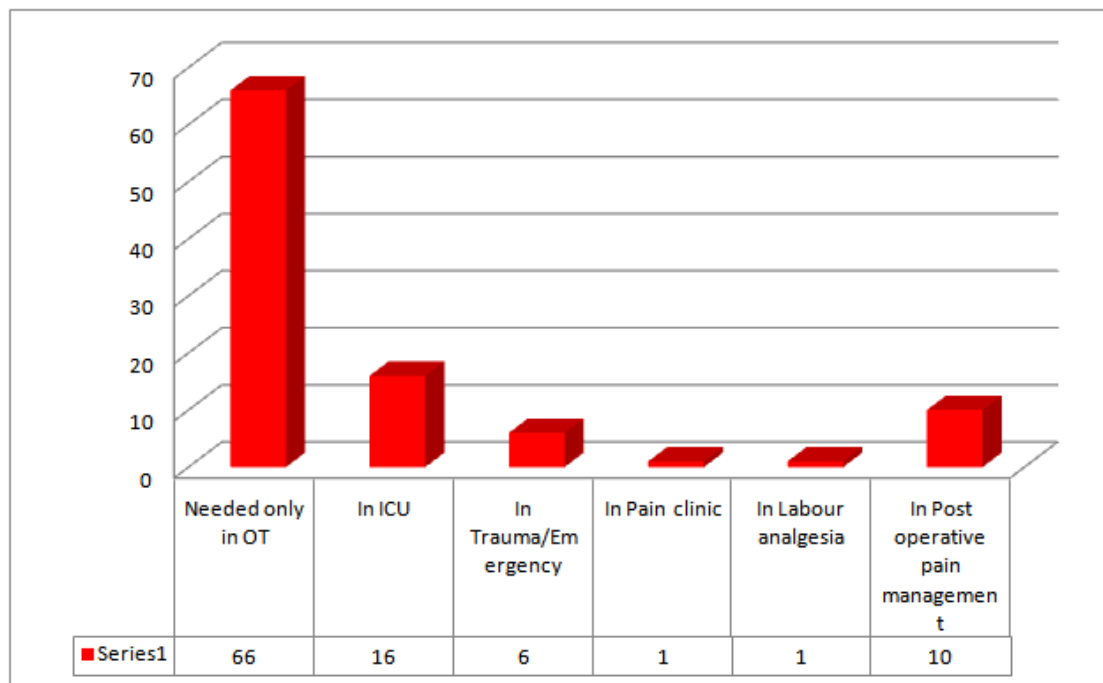
- Death
- Duration of not waking up
- Bleeding
- Awareness



Knowledge about pain relief during surgery and post operative care (role outside ot)

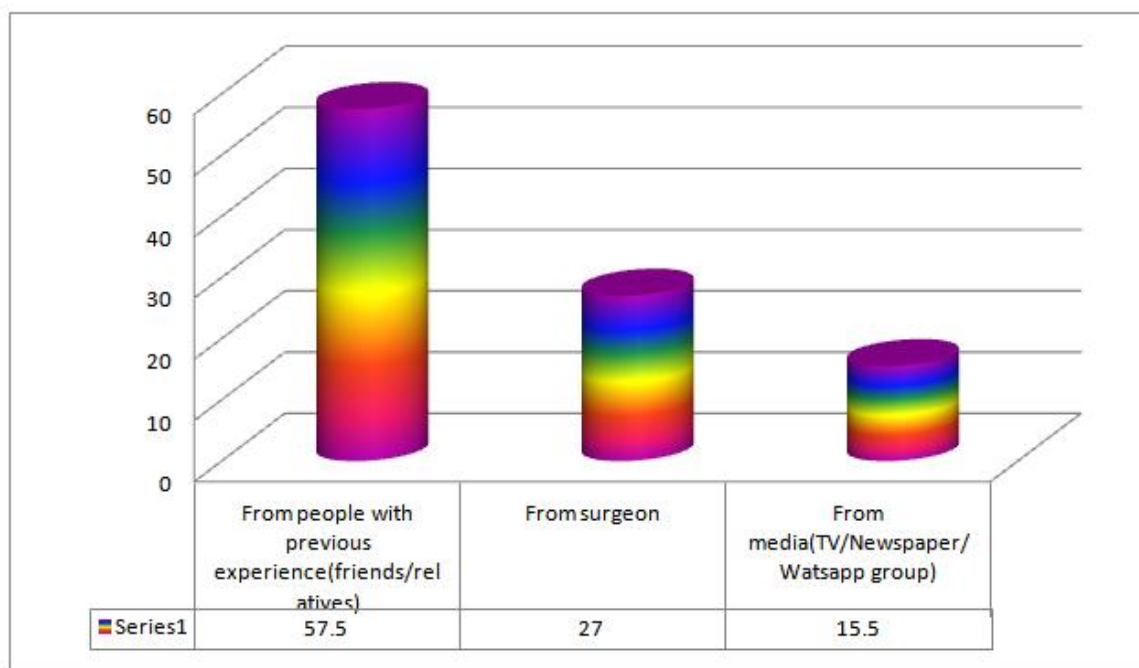
Majority of participants feel (66%) that Anaesthesiologist were needed only in OT. 34% were aware about responsibility outside OT mainly in

- Intensive Care Unit (ICU)- 16%
- Trauma Centre/Emergency- 6%
- Pain Clinic- 1%
- Labour Anaesthesia- 1%
- Post-operative pain management- 10%



Source of knowledge about anesthesia and anaesthesiologists

- 57.5% said they gathered information from other people who had undergone surgery in the past, friends/relatives.
- 27% gathered information from surgeons
- 15.5% from media (TV/ Newspaper/WhatsApp groups)



IV. Discussion

This study was conducted at Tertiary Care Teaching Institute for purpose to analyse the knowledge and perception of patients towards Anaesthesiology and role of Anaesthesiologist.

Few study and survey has been conducted in other states of India; article has been published but none reported/conducted in this part (Eastern Zone) of the country. Overall poor knowledge of Anaesthesia and Anaesthetist has been reported by Suresh et al¹ who conducted study with 20% illiterate and none of them were graduate or post-graduate, which is in contrast to my study where 30% were Primary school passed; 18% were Higher school; 9% were Intermediate; 10% Graduate/Post- Graduate passed. Total 67% literate and 33% were illiterate. Most important aspect in my study is that; None had previous experience to surgery and Anaesthesia; would have made a difference. Definitely the study by Naithani et al² reported lack of knowledge towards speciality was due to illiteracy; which is slightly different from mine. Study conducted in UK by Swinhoe and Groves⁴ reported only 80% population having knowledge about Anaesthesia; which is literate country and has all the sources.

Prasad and Suresh¹ reported 75% population had no idea of Anaesthesiologist, quite different from the study of Naithani et al² where participants did not know Anaesthesiologists as Doctor; who had any role in their operative treatment.

In this study 77% participants knew that they are to undergo major surgery; 15% had idea that they need surgery but not about nature of surgery and 8% cannot tell anything.

44% in this study had no knowledge about role of Anaesthesiologist; 28% answered that they administer gases and drugs; 17% thought it is a job of surgeons; 10% had some knowledge that they have important role of Anaesthetising and monitoring during surgery while 1% took Anaesthesiologist as technicians who help surgeons. The above findings is similar to Uma and Hanji, and Naithani et al^{3,2}.

Previous studies have not considered about knowledge, method of Anaesthesia among literate group but in this study 41% replied injection; 12% inhalation, 11% replied no idea, 26% were least bothered.

Among the population/participants who had some idea regarding importance of Aneasthesia 88% had no knowledge of expected complications but were fearful of pain during surgical procedure and 12% who were aware of complications; their major fear was – death, duration of not waking up, bleeding and awareness.

In study by Herman and Shevd^{5,6} main concern was awareness and possibility of not waking up. Lastly the questionnaire regarding role of Anaesthesiologists outside operating room (like in post-operative care, ICU) was 30% among aware and literate participants which should be considered dismal; better not to discuss; CPR (Resuscitation); teaching and research.

V. Conclusion

As per this above study, Anaesthesia practice in backdrop is equally responsible for poor recognition of both Anaesthesia and Anaesthesiologists and frontline approach and direct communication with the population is needed to make them understand the role of Anaesthesiologist play in pre, intra, post-operatively, in intensive

care, pain and palliation and other fields in their better care .Scenario is changing in last two decades but more stress on Preanaesthetic clinic, Patient workup, Preoperative visits and directives and postoperative care is the key factor.

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