



ORIGINAL RESEARCH PAPER

Anaesthesiology

STUDY OF CONSCIOUSNESS REGARDING ANESTHESIA AND ANESTHESIOLOGIST IN RURAL AREA HOSPITAL

KEY WORDS: Anesthesia, Anesthesiologist, rural area, consciousness.

Dr. Geeta B.Patel M.D. Anesthesiology General Hospital, Palanpur

Dipak Magal* M.D. Anesthesiology *Corresponding Author

ABSTRACT

Anesthesia has become one of the most advanced specialties in modern medical practice. Anesthesiologist are playing very decisive role in management of patients. Apart from operation theatre, anesthesiologist have role in critical care, pain clinics, trauma centers, labour analgesia also. Though the roles of anesthesiologist is crucial, public knowledge towards anesthetic practice is limited. Considering these, the present study is conducted to assess the people's knowledge about the role of anesthesiologist in medical practice. So it is important for us to think that why the importance of this specialty is not known & also how to make people aware about it. The present study was conducted among 500 patients at general hospital, Palanpur during period of last 6 month (from May-2018 to Oct-2018). All the patients were asked few questions about anesthesia. Questions were in their local language, mostly Gujarati & Hindi. Questionnaire was filled out for all the patients. The patients on the basis of their answers were classified as a "Aware or unaware" also source of information was analyzed. Most of the patients in our study were not aware of role of anesthesiologist, their role in operating room and postoperative period, and about anaesthesiology as a separate specialty. Contribution of anesthesiologist in patient's knowledge was least. Only 38.4% of patients could be classified as (know that who is anesthetist) aware and source of their information was surgeon also. 60% patients were not aware of preoperative consent. Only 46.4% were aware of anesthesia - related issues. Pain was reported as the most common preoperative fear. Large amount of patients were satisfied with the quality of anesthesia services 80.4%. 87.6% patients shows their willingness to meet their anesthesiologist in case of any future surgery. We concluded that there is wide range of misunderstanding in the patients about the role of anesthesiologist inside & outside operating room. Rural awareness about anesthesia is extremely low likely because of low literacy level. Therefore, adequate proper time must be given to educate the patients about anesthesia & also various role of anesthesiologist outside OT. Both patients & anesthesiologist must understand the importance of consent, as it is not only for legal binding but it can remove preoperative fear of patients and can improve satisfaction towards surgery.

Background:

About more than 3/4th of Indian population resides in rural areas. Even in urban area, consciousness regarding anesthesia and anesthesiologist is limited. Very limited data available from rural India on this prospective. Our analysis highlights this lack of public consciousness and discusses possible remedies to overcome these limitations.

About the Place:

Study was carried out at district level hospital of backward, rural & tribal area of Gujarat . It is general hospital of Banaskantha district of Gujarat, Palanpur is a headquarter of banakantha district. Total area is about 12,703 km², Population of district is 140,344 as per 2011's data. Male constitute 53% of the population & Females 47%. Literacy rate is 66.39%. District has 14 Taluka Places. In 2006, the ministry of panchayati raj named Banaskantha one of the country's 250 most backward districts. It is one of the 6 districts in Gujarat currently receiving funds from the Backward Regions Grant Fund programme (BRGF).

Introduction:

However, Anesthesia has developed gradually extremely since the first anesthesia was administered by W.T.G. Morton on 16th October 1846, as the day of 16th October celebrated as "world Anesthesia Day". Revolution of anesthesia in last 150 years has occurred & the tremendous advances in anesthesia has made the most complex surgeries feasible & safe. Anesthesiologist are not just alleviate pain by inducing unconsciousness, but major role in critical care, pain clinics, resuscitation team member. "Anesthesiology" is a major vital branch of medical practice, but public awareness about this faculty seems to be very low. It is not uncommon for an anesthesiologist - in India to face the question like. "Is anesthesia a separate medical faculty?" Many of the anesthesiologist have struggled at some point with issues related to the status and image of the specialty. It has been felt that though the role of anesthesiologist is very crucial, he/she doesn't get the due he/she deserves. Majority of the patients think of the anesthesiologist as an assistant to surgeon, who make them to sleep & wakes them when surgery is over, but they do not realize the comprehensive medical care the anesthesiologist provides between those two events & beyond that. Anesthesiologist are the first to diagnose & treat medical problems & complications that may arise before, during & after the surgery, hence they called

"Acute physician" in OT. With the changing health - care environment and also advancement of anesthesia techniques, the patients & general public must be educated considering all these, the present study was carried out to assess the patient's knowledge about role of anesthesiologist during intra operative period & to educate people about anesthesia. Results should be analyzed to improve their knowledge about anesthesia. The outcome apart from estimating our rural area patient appearance also helped us evaluate strategies to improve intra operative care of patients.

Material & Methods:

A cross-sectional study of 500 patients at secondary health care district hospital was carried out. Patients were from ASA grade-I to grade-III. Patients were of elective & emergency surgeries, both male & female, (290 males & 210 female) Majority aged between 20 to 60 years. Surgeries under all specialties including General Surgery, orthopedic, Ophthalmology, ENT, Urology, Obstrect & Gynac surgery. Study was done over last 6 month period. Written consent from all the patients taken. Patient with poor medical condition, mentally retarded, psychiatric patients were excluded from the study. The 19 questions were prepared in local language & explained verbally to all the patients in local language, as a number of patients in our study were illiterate. Help of family member of patients also taken for patient's information. Patient were asked for, source of information for anesthesia, about patient's fears & apprehensions, level of satisfaction regarding quality of anesthesia services, willingness to know about anesthesiologist in case of future surgery, level of literacy, past exposure to anesthesia with knowledge of anesthesia, percentage of patient giving answer was found out. Statistical analysis done to find out consciousness of patients about anesthesia and anesthesiologists.

Results:

Study of 500 patients. Out of this 290 (58%) Patients were males & 210(42%) patients were females. Majority of the patients between the age group of 20-60 years. In our study, patients from various surgical department were included: General Surgery-115 Pts (23%), Obstetric & gynecology-53 Pts. 10.67%), Orthopedic-214 Pts. (42.8%), ENT-9 Pts. (1.8%), Urology-4 Pts. (0.8%) & Ophthalmology-105 Pts. (21%). Among them 465 major surgeries

& 35 minor surgeries patients. Different type of anesthesia used in this study. General anesthesia (G/A) given to 119 patients (23.8%), regional anesthesia (R/A) given to 310 patients (62%), G/A + R/A given to 14 patients (2.8%), topical anesthesia given to 57 patients (11.4%). Elective & Emergency both surgery included. There were 468 (93.6%) elective surgeries & 32 (6.4%) emergency surgeries included. In our study about 198 (39.6%) patients were illiterate & 209 (41.8%) patients from lower socioeconomic condition. There was a history of undergoing some surgery in the past in 88 (17.6%) of patients. Study shows that out of 500 patients, total 88 (17.6%) patients undergone surgery in past out of it only 43 (8.6%) patients knew that an anesthesiologist give anesthesia during surgery. In our study, we found that only 17.6% of the patients knew that anesthetist are qualified doctors & 60.6% don't know about the qualification of anesthetists. Only 37.6% patients knew that anesthetist have some role after surgery.

Table 1 : Age & sex ratio

Age	10-20 year	21-30 year	31-40 year	41-50 year	51-60 year	61-70 year	71-80 year	81-90 year	Total %
Male	41	69	42	37	55	34	10	2	290 (58%)
Female	30	40	34	21	40	35	7	3	210 (42%)
Total	71	109	76	58	95	69	17	5	500

Table 2 : Surgeries from different department

Department	Major	Minor	Total
General Surgery	102	13	115 (23%)
Ob & Gy.	47	6	53 (10.67%)
Orthopedic	200	14	214 (42.8%)
ENT	7	2	9 (1.8%)
Urology	4	0	4 (0.8%)
Ophthalmology	105	0	105 (21%)
Total	465	35	500

Table 3 : Type of anesthesia

General Anesthesia (G/A)	Regional Anesthesia (R/A)	G/A + R/A	Topical Anesthesia
119 (23.8%)	310 (62%)	14 (2.8%)	57 (11.4%)

Table 4 : Surgeries Plan / Emergency

Surgeries	Plan OT	Emergency OT
	468 (93.6%)	32 (6.4%)

Table 5 : Past exposure to anesthesia

Past exposure to anesthesia	Yes	No
No. of patients	88 (17.6%)	412 (82.4%)

Table 6 : Literacy level

Literacy level	No. of patients		
	Male	Female	Total
Illiterate	100	98	198 (39.6%)
Primary education (0-7 std.)	84	58	142 (28.4%)
Secondary education (8-10 Std.)	75	42	117 (23.4%)
Higher secondary education (11-12 Std.)	23	10	33 (6.6%)
Graduates & postgraduates	8	2	10 (2%)

Table 7 : Patient's perception of anesthesia provider

Provider	Patients who had past exposure to anesthesia	Patients who had not past exposure to anesthesia	Total
Surgeon	27	101	128(25.6%)
Anesthetist	43(8.6%)	143	186(37.2%)
Nurse	7	54	61(12.2%)
OT assistant	1	16	17(3.4%)
Don's know	10	98	108(21.6%)
Total	88(17.6%)	412(82.4%)	

Table 8 : Socioeconomic Status

Socioeconomic Status	Male	Female	Total
Lower (BPL Card)	113	96	209 (41.8%)
Middle	177	114	291 (58.2%)
Total	290	210	500

Table 9 : Knowledge of patients regarding anesthesia & anesthesiologists (Pre, Intra & post operative)

No.	Question with multiple choice	No. of patients	%
1	What is anesthesia?		
	Yes	192	38.4%
	No	200	40%
2	Is anesthesia essential for surgery?		
	Yes	448	89.6%
	No	0	0%
3	Is anesthesia safe?		
	Yes	166	33.2%
	No	134	26.8%
4	Are anesthesiologist qualified doctor?		
	Yes	88	17.6%
	No	303	60.6%
5	Role of anesthetist in operation room .		
	Administer drugs only	67	13.4%
	Skilled assistant	25	5%
6	Is there any role of anesthetist in postoperative period?		
	Yes	88	17.6%
	No	213	42.6%
7	Is there any role of anesthetist other than operating room?		
	Yes	103	20.6%
	No	188	37.6%
8	Is there any role of anesthetist in pain clinics?		
	Yes	74	14.8%
	No	114	22.8%
9	Is anesthesiology a separate medical faculty?		
	Yes	249	49.8%
	No	200	40%
10	Know about different anesthesia techniques?		
	General anesthesia	142	28.4%
	Regional anesthesia	263	52.6%
11	Doe's presence of associated diseases. (HT, DM, epilepsy, COPD, Asthma, Liver disease, Renal disease, IHD) increase the risk of anesthesia?		
	Yes	143	28.6%
	No	269	53.8%
12	Doe's habit of smoking, alcohol, Tobacco, Opium addiction increases risk of anesthesia?		
	Yes	175	35%
	No	164	32.8%

13	Are you aware of the anesthesia risks given in the consent form? Yes No Don't know	104 300 96	20.8% 60% 19.2%
14	Is there role of anesthetist in labour analgesia? Yes No Don't know	6 64 430	1.2% 12.8% 86%
15	Is there any role of anesthetist in reviving a patient when heart stops working (CPR) or patient on ventilator or in ICU? Yes No Don't know	45 253 202	9% 50.6% 40.4%
16	Where did you get information from? Knew it before hand. Was told by surgeon. Informed by family & friends. Come to know from TV & newspaper others	88 128 94 106 84	17.6% 25.6% 18.8% 21.2% 16.8%
17	What was the level of satisfaction regarding anesthesia? Not at all Fair Good Complete Satisfaction	8 21 69 402	1.6% 4.2% 13.8% 80.4%
18	In case of any future surgery, would you like to know about your anesthetist? Yes No	438 62	87.6% 12.4%
19	Any queries / questions in mind after proper understanding from anesthetist regarding consent for anesthesia? Yes No	100 400	20% 80%

Table: 10 : Fear & discomfort during preoperative, intra operative & post operative period

Period	Complains	No. of Pts.	%
Preoperative fear reported	Pain	232	46.4%
	Needle fear	113	22.6%
	Not regaining consciousness	50	10%
	Prolonged hospital stay	48	9.6%
	Increase cost of surgery	24	4.8%
	Incomplete anesthesia	29	5.8%
	Others	4	0.8%
Intra operative Problems reported	No Complaint	181	36.2%
	Feeling cold	144	28.8%
	Nausea, Vomiting	68	13.6%
	Shivering	69	13.8%
	Light headedness	30	6%
	Difficulty in breathing	3	0.6%
	Others	5	1%
Fear during surgery	Pain	170	34%
	Fear of being aware during surgery	230	46%
	Death during surgery	31	6.2%
	Needle prick	49	9.8%
	Other	20	4%
Fear & discomfort after surgery	Pain	202	40.4%
	Nausea, Vomiting	64	12.8%
	Won't or delayed regain consciousness	11	2.2%
	Difficulty in breathing	9	1.8%
	Cold, Shivering	85	17%
	Other	49	9.8%

It was extremely, disappointing that 62.4% patients don't know about role of anesthetist in pain clinics & also 86% of patients don't know the role of anesthetist in labour analgesia. 42.6% of the patients answered that there is no role of anesthetist after

surgery & 19.8% patients didn't have any answer. Patients were asked about discomfort during & after surgery. (6 hours after surgery). 36.2% patients have no any complains during intra operative period & rest have some complains during surgery like feeling cold, nausea, vomiting, shivering, light headedness, difficulty in breathing. Main complain of pain in 40.4% patients in postoperative period, other postoperative complains include, nausea, Vomiting, delayed regain consciousness, difficulty in breathing, cold, shivering. 16% of the patients don't have any discomfort in postoperative period. Patients rating the services as fair (4.2%), good (13.8%) & complete satisfaction (80.4%) were as only 1.6% patients not satisfied. Thus an over whelming number of patients (98.4%) were satisfied with the quality of anesthesia services. When asked about future inclination to know about anesthesiologist a majority of patients (87.6%) were interested to know their anesthetists.

Discussion:

India's population was about 1.2 billion in the 2011 year of which 72.18% resides in rural area. Majorities of study of awareness of anesthesia was carried out on urban population, but very less data available for the 3/4 population of our country. By the present study, We evaluated how well "anesthesiologist" are known to this rural population. Once lack of awareness is quantified, appropriate steps can be suggested on the basis of magnitude of problem to rectify it. The knowledge of the role of anesthesiologist & anesthesia among the public is very limited, as compared to other medical & surgical specialty. Patients in rural area do not see a doctor - patients relationship as a legal binding unlike in major cities. They completely trust the doctors & thus do not question much. The same attitude is responsible for 80.4% patients. being completely satisfied after surgery. Role of preoperative consent is very vital in making patients understand "anesthesia & anesthesiologist" better. It also reduces the anxiety of patients towards surgery. The anesthesiologist should share equal responsibility of explaining terms of consent and explaining possible risk during surgery. One positive aspect was that when the patients were asked whether they would like to see their anesthesiologist prior to next surgery, 87.6% replied as yes.

The people remember more about their surgeons than their anesthesiologist. It may be because of the limited time anesthesiologist spend with patients. About 81% of the patients had idea about types of anesthesia, 56.6% of the patients knew that anesthesiologist anaesthetize the patients & monitored them throughout the surgery. 17.6% patients knew anesthesiologist were doctors, this could be due to lack of education. It was disappointing to know that only 20.8% were aware of the anesthesia risks given in the consent form. Whatever be the patient's level of education or knowledge of anesthesia practice, the patients were in majority happy and highly satisfied with services of anesthesiologists. Much needs to be done by the anesthesiologist in educating the patients. To improve awareness in community, efforts can be directed towards improving communication with patients, as in some occasions the anesthesiologist meets the patient for the first time in operation theatre since the person doing preanesthetic examination & the one providing anesthesia both are different. Increasing exposure in the community through news paper, audiovisual media and lectures. Information that increases public awareness of the role of anesthesiologist will contribute toward improving the image of anesthesia.

Conclusion:

Most of the patients not aware of the role of anesthesia & anesthesiologist. This can be explained by the fact that an anesthesiologist gets to talk with his patient only during patient's preanaesthetic examination (PAE). Spending more time in PAE clinics, more interactions with patients & with the help of print, electronic media, public health programmer & familiarizing themselves with the patients before surgery. Anesthesiologist should take consent from the patients & relative after verbally explain all the merits & demerits of the procedure in vernacular language, so patients can better understand, as Informed consent is a very valid document. The task of taking consent should not be

left on the surgeon alone. A known familiar face in an unfamiliar environment (operating room) goes a long way to diminish anxiety of patients. The educational efforts made during preoperative & postoperative visits of patients. Ability of this specialty to develop also depend upon its success in educating the public, politicians, other health care professionals about its role. We need newer initiatives for educating public and professional for future progress.

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