

# Fear, Anaesthesia and Internet- A Cross Sectional Study

Abhinav Pai<sup>1</sup>, Deependra Suresh Kamble<sup>2</sup>, Esha Nilekani<sup>3</sup>, Shashank Pandey<sup>4</sup>

<sup>1</sup>Senior Resident, Department of Anaesthesiology, Goa Medical College, Bambolim, Goa.

<sup>2</sup>Lecturer, Department of Anaesthesiology, Goa Medical College, Bambolim, Goa.

<sup>3</sup>Senior Resident, Department of Anaesthesiology, Goa Medical College, Bambolim, Goa.

<sup>4</sup>Junior Resident, Department of Anaesthesiology, Goa Medical College, Bambolim, Goa.

## ABSTRACT

### BACKGROUND

Anaesthesia makes a patient unaware of his/her surroundings during surgery also relieving pain which may lead to intolerable experiences and unwanted memories. This study was undertaken to recognise concerns of patients prior to surgery, assess the source of distress and determine the relationship between fears, demographics and relation to internet exposure. 71% patients were previously exposed once or more than once to anaesthesia. Fear was most commonly associated with pain in 40% patients. 12% patients completely agreed that the internet alone helped to allay any fear/doubt they had, 52% felt the internet only partially helped their doubts and they needed reassurance from the doctor also and 36% felt that only the doctor could allay their fears with regard to the procedure. Proper anaesthesia should allow a patient to be not anxious, but cooperative to quicken induction as well as recovery, and as far as possible a comfortable experience to make the perioperative period a really calm.

### METHODS

This is an observational cross-sectional survey carried out using printed questionnaire distributed among patients at outpatient level during preanaesthetic check-up prior to surgery. A confidence interval of 95% with an alpha value of 0.05% was considered; two-sided test required a sample size of 400 and was thought to have an error of 5%. Data collection was done at outpatient level.

### RESULTS

Fear was mostly associate with pain in 40% patients, secondarily to needle pricks and waking up from anaesthesia, 25% feared awareness. 12% patients completely agreed that the internet alone helped to allay any fear/doubt they had, 52% felt that the internet only partially helped their doubts and they needed reassurance from the doctor also and 36% felt that only the doctor could allay their fears with the procedure.

### CONCLUSIONS

Fear related to anaesthesia lies in doubts and misinformation in the minds of patients for the first anaesthetic. Availability of source of knowledge like the internet has made people aware of many things, guiding patients in the right direction to gain information which is credible and correct is important

### KEYWORDS

Fear, general anaesthesia, internet, cross sectional study

*Corresponding Author:*

*Dr. Abhinav Pai,*

*#2, 'Saraswati',*

*Amardeep Society, Mugali,*

*Curtorim- 403709, Goa.*

*E-mail: pai.abhinav@yahoo.in*

*DOI: 10.18410/jebmh/2019/561*

*Financial or Other Competing Interests:*  
*None.*

*How to Cite This Article:*

*Pai A, Kamble DS, Nilekani E, et al. Fear, anaesthesia and internet- a cross sectional study. J. Evid. Based Med. Healthc. 2019; 6(41), 2706-2709. DOI: 10.18410/jebmh/2019/561*

*Submission 03-09-2019,*

*Peer Review 15-09-2019,*

*Acceptance 30-09-2019,*

*Published 11-10-2019.*



**BACKGROUND**

Anaesthesia makes a patient unaware of his/her surroundings during surgery also relieving pain which may lead to intolerable experiences and unwanted memories. In certain patients though, the fear of undergoing anaesthesia may even be more than undergoing surgery, which prevents them from undergoing procedures which are essential for better improvement of their health. This fear of anaesthesia would actually reflect the quality of health of the patient, in a study by Kevin et al<sup>1</sup> 75% of the subjects felt anxious, main attributing factors being pain. In another study by Mavridon P et al<sup>2</sup> they did a similar study of age, gender, education and previous exposure with anaesthesia with patients fear. Fear they found was linked to postoperative pain in 84% patients, nausea in 60.2%, paralysis to anaesthesia 33.5% and revealing personal information when anaesthetised in 18.8%.

We wanted to evaluate the concerns of patients prior to surgery, assess the source of distress and determine the relationship between fears and demographics (age, gender, educational level and previous anaesthesia exposure) and relation to internet exposure if any.

**METHODS**

After approval from the institutional ethical committee, this observational cross-sectional survey was carried out using printed questionnaire distributed among patients at outpatient level who came in for a preanaesthetic check-up prior to surgery. Patients included were all above 18 years of age of either sex posted for both major and minor surgeries. Exclusion criteria included those who refused to fill the questionnaire, under the age of 18 years, those with communication problems and history of psychiatric illness. A confidence interval of 95% with an alpha value of 0.05% was considered, two-sided test required a sample size of 400 was sought to have an error of 5%. Data collection was done at outpatient level by a anaesthesiologist. The questions were related to demographics, the fear of anaesthesia and internet usage. Consent was obtained after explaining and informing the patient the use of the questions, guaranteed anonymity was assured without revealing personal information. After the question formats were filled, the data was exported to structure in a Microsoft Excel spreadsheet and the data was analysed using SPSS software.

**RESULTS**

In our study 400 patients were included fulfilling the inclusion criteria. The highest incidence was of patients in the age group of 25-34 years of age of 120 patients which was 30%. More female (204) than male (196) patients were found in the study which wasn't statistically significant. Most were found to be educated at least at a graduate level 37%

and only 15% were found to be illiterate or less than 10<sup>th</sup> standard pass. Seen in table 1, table 2 and table 3. 71% patients were previously exposed once or more than once to anaesthesia, 29% were previously never given anaesthesia. Of the previous anaesthesia exposed patients 29% remembered breathing through a mask, 30% remembered being given an injection local, regional or intravenous and only 11% had no recollection of the anaesthesia. Seen in table 4 and table 7. Fear of not Fear was most associate with pain in 40% patients, secondarily to needle pricks and waking up from anaesthesia, 25% feared awareness and only 11% feared revealing personal information while under. Seen in table 5. 12% patients completely agreed that the internet alone helped to allay any fear/doubt they had, 52% felt the internet only partially helped their doubts and they needed reassurance from the doctor also and 36% felt that only the doctor could allay their fears with the procedure. Seen in table 6.

Age (Yrs.)	Incidence	%
18-24	44	11
25-34	120	30
35-44	56	14
45-54	64	16
55-64	56	14
65-74	36	9
75 or older	24	6
Total	400	100

**Table 1**

Gender	Incidence	%
Male	196	49
Female	204	51
Total	400	100

**Table 2**

Educational Level	Incidence	%
Highschool	68	17
Graduation	148	37
Postgraduation	124	31
Others	60	15
Total	400	100

**Table 3**

Previous Anaesthesia Exposure	Incidence	%
Never given	116	29
Don't remember	44	11
Breathing through a mask	68	17
Given an injection	120	30
Local anaesthesia	52	13
Total	400	100

**Table 4**

Fear with Anaesthesia	Incidence	%
Needle pricks	128	32
Pain	160	40
Not waking up	124	31
Giving personal info	44	11
Awareness	100	25
Total	400	100

**Table 5**

Internet Helps in Reducing Fear	Internet Helps	%
Yes completely	48	12
Partially, need professional explanation	208	52
No	144	36
Total	400	100

**Table 6**

Previous Anaesthetic Exposure		%
Yes once	156	39
Yes more than once	128	32
Never	116	29
Total	400	100

Table 7

## DISCUSSION

Anxiety as well as fear prior to surgery would affect the patient during the perioperative period, thus affecting the overall outcome of the surgery. It often leads to autonomic disturbances such as high blood pressure, arrhythmias and palpitations.<sup>3</sup> Greater amounts of anaesthetic drug requirement<sup>4,5</sup> and also on some occasions more postoperative pain.<sup>6</sup>

Intense fear in some patients has even led to postponement of surgery, which could greatly affect the quality of life. Some patients with prior exposure to surgery and anaesthesia be it minor or major come with a previous traumatic experience and bad memories, which leads them to be more cautious during the next procedure and they often refer to the internet /friends and family for help. However, the internet being a vast source of knowledge doesn't always clear doubts in the patients mind and with bigger words may even further hype the worries of the patient. In a study by V. Kurup et al<sup>7</sup> in a study of 877 patients who looked up information in the internet about their medical condition was 41%, surgery 37%, hospital 19% but only 4% looked up for information regarding anaesthesia (36/879). Out of these 36 patients 14(39%) said the website helped to answer questions. Out of the 831 who didn't use anaesthesia 503(57%) indicated that they would be receptive to being diverted to a specific website for Anaesthesia. Majority though did not use the internet to seek information on anaesthesia. Also, McMullan M. et al<sup>8</sup> in his study concluded that there has been a change in the way patients take information i.e. from a passive consumer to a active one and doctors are responding to more internet aware patients.

Similarly, in our study leaving 12% patients the rest still felt that reassurance and explanation from an anaesthesiologist would help understand and clear their doubts if any. Keeping up with times and using the internet in a beneficial manner should also be considered in reducing the overall incidence of fear. Including the correct information, with reliable web-based resources should be made available to interested patients at every preoperative visit. Serkan et al<sup>9</sup> concluded following his study that patients taking spinal anaesthesia, they believed education status may affect preoperative anxiety level and as information available on the internet may not be credible doctors must control its accuracy.

Some suggested methods of intervention to allay such anxiety could be added as follows, having a doctor who not only addresses the preoperative health of a patient, also questions the patient on any doubts and in a brief simplified manner explains it to them. Vagnoli L et al<sup>10</sup> suggested that

presence of doctors as clowns during the induction, together with the parents, could prove to be an effective intervention for allaying children's and parents' anxiety . Nadja K et al<sup>11</sup> also concluded the same. Also getting an informed consent explaining the due risks, complications likely to occur which is read and understood by the patient in their vernacular language is important, if difficulty in understanding persists then referral with relevant material, website or even a video for preoperative patients to reduce any fear leading to the procedure may help the patient. Ilkaya NK et al<sup>12</sup> has also suggested use of patient-selected music or use of white noise to can decrease anxiety. Harikumar R et al<sup>13</sup> listening to music helped decrease need for sedation and prevent discomfort during colonoscopy.

## CONCLUSIONS

Fear related to anaesthesia lies in doubts and misinformation in the minds of patients for the first anaesthetic. However, it is the patients with previous anaesthetic exposure who have to be more carefully dealt with. Proper anaesthesia should allow a patient to be not anxious, but cooperative to quicken induction as well as recovery, and as far as possible a comfortable experience to make the perioperative period a reality in a calm manner. Availability of source of knowledge like the internet has made people aware of many things, guiding patients in the right direction to gain information which is credible and correct.

## REFERENCES

- [1] Kain ZN, Wang SM, Mayes LC, et al. Distress during the induction of anaesthesia and postoperative behavioral outcomes. *Anaesth Analg* 1999;88(5):1042-1047.
- [2] Mavridon P, Dimitriou V, Manataki A, et al. Patient's anxiety and fear of anesthesia: effect of gender, age, education, and previous experience of anesthesia. A survey of 400 patients. *J Anaesth* 2013;27(1):104-108.
- [3] Williams JG, Jones JR. Psychophysiological response to anaesthesia and operation. *JAMA* 1968;203(6):415-417.
- [4] Maranets I, Karin ZN. Preoperative anxiety and intraoperative anesthetic requirements. *Anaesth Analg* 1999;89(6):1346-1351.
- [5] Kil HK, Kim WO, Chung NY, et al. Preoperative anxiety and pain sensitivity are independent predictors of propofol and sevoflurane requirements in general anaesthesia. *Br J Anaesth* 2012;108(1):119-125.
- [6] Kalkman CJ, Visser K, Moen J, et al. Preoperative prediction of severe postoperative pain. *Pain* 2003;105(3):415-423.
- [7] Kurup V, Considine A, Hersey D, et al. Role of the Internet as an information resource for surgical patients: a survey of 877 patients. *Br J Anaesth* 2013;110(1):54-58.

- [8] McMullan M. Patients using the internet to obtain health information: how this affects the patient-health professional relationship. *Patient Educ Couns* 2006;63(1-2):24-28.
- [9] Tulgar S, Boga I, Piroglu MD, et al. Preoperative anxiety before spinal anesthesia: does internet-based visual information/multimedia research decrease anxiety and information desire? A prospective multicentered study. *Anesth Essays Res* 2017;11(2):390-396.
- [10] Vagnoli L, Caprilli S, Robiglio A, et al. Clown doctors as a treatment for preoperative anxiety in children: a randomized, prospective study. *Pediatrics* 2005;116(4):e563-e567.
- [11] Könsgen N, Polus S, Rombey T, et al. Clowning in children undergoing potentially anxiety-provoking procedures: a systematic review and meta-analysis. *Syst Rev* 2019;8(1):178.
- [12] Ilkkaya NK, Ustun FE, Sener EB, et al. The effects of music, white noise, and ambient noise on sedation and anxiety in patients under spinal anesthesia during surgery. *J Perianesth Nurs* 2014;29(5):418-426.
- [13] Harikumar R, Raj M, Paul A, et al. Listening to music decreases need for sedative medication during colonoscopy: a randomized, controlled trial. *Indian J Gastroenterol* 2006;25(1):3-5.