

# Short Communications: : Causes and Consequences of Complaints Against Anesthesiologists: A 5-year Retrospective Study



Cyrus Emir Alavi<sup>1</sup> , Abbas Sedighinejad<sup>2,3</sup>, Gelareh Biazar<sup>2,3\*</sup> , Fardin Yousefshahi<sup>4,5</sup>, Bahram Naderi Nabi<sup>2,3</sup>, Siamak Rimaz<sup>2,3</sup>, Elahe Rafiee<sup>1</sup>, Farimah Mirbloom<sup>2,3</sup>

1. Razi Clinical Research Development Center; Guilan University of Medical Sciences, Rasht, Iran.
2. Department of Anesthesiology, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran.
3. Anesthesiology and Special Care Research Center; Guilan University of Medical Sciences, Rasht, Iran.
4. Brain and Spinal Cord Injury Research Center, Neuroscience Institute, Tehran University of Medical Sciences, Tehran, Iran.
5. Imam Khomeini Hospital Complex, Tehran University of Medical Sciences, Tehran, Iran.



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## ABSTRACT

**Background:** Nowadays, complaints against the medical staff and the demand for physicians' malpractice compensation are increasing. Anesthesiologists are also faced with medical litigation. Because of the importance of this issue and lack of such a research in Guilan Province, this study was conducted to determine the causes and consequences of complaints against anesthesiologists. This study aimed to reveal the anesthesia malpractice claims and underlying factors of its medico-legal litigations.

**Methods:** This study surveyed all complaints against anesthesiologists from the Medical and Forensic Medicine Organization of Rasht from 2011 to 2015.

**Results:** In this study period, 40 complaints against anesthesiologists were registered. The patients who complained were mostly male (52.5%), married (72.5%), and aged >50 years (62.5%). Of these, 6 medical malpractice were occurred (15%). Death of patients (55%) was the most common cause of complaints and negligence is the highest rate of failure by anesthesiologists (90%). Patients in general surgery wards under general anesthesia in governmental educational hospitals were affected the most; 45% in recovery and 27.5% in ICU sectors. In addition, 15% of all referred anesthesia-related malpractice claims positive legal action.

**Conclusion:** Based on the results, a great concern over the performance of assistants in educational care centers, especially in general surgery ward is recommended. It is also necessary to monitor patient's status carefully in the recovery room and use experienced personnel in there as well as intensive care units.

## \* Corresponding Author:

**Gelareh Biazar, PhD.**

**Address:** Department of Anesthesiology, School of Medicine, Guilan University of Medical Sciences, Rasht, Iran.

**Tel:** +98 (21) 22376273

**E-mail:** gelarehbiazar1386@gmail.com

## 1. Introduction

Nowadays, complaints against the medical staff and demand for physicians' malpractice compensation have markedly increased which induce stress and waste their energy, money and time as well [1, 2]. Based on available literature, increased number of complaints in recent years could be the result of population growth, increased number of physicians, and general public awareness and knowledge. Nowadays people expect to receive the standard and safest care in medicine [3]. These complaints occur even when everything seems to be predictable, such as dental procedures [4, 5]. Anesthesiologists, like other specialists, are subject to complaints and lawsuits. Actually, medical errors in anesthesia can be more hazardous than other fields [6].

Regarding the significant advances in anesthetics, responsibility of an anesthetist is not limited to the operating room. It begins from the pre-operation visits and continues during and after the operation. This process is in the proper interaction with the surgeon and both of them are responsible for the complications and problems of the patient [7,8]. This reflects the huge responsibility of anesthesiologists. Although the likelihood of complaints against just anesthesiologists is about 3% to 4%, the compensation in this area exceeds 10% of the total amount of medical malpractice [9].

In order to prevent complaints and lawsuits against physicians as much as possible, this category should be thoroughly investigated and examined for its various dimensions in vulnerable groups and areas of the complaint [2]. To the best of our knowledge, there are few investigations in this area, and because of cultural, social and economic differences among societies, their results cannot be generalized. Owing to the importance of the issue and the lack of such a research in Guilan Province, this study was conducted to determine the causes and consequences of complaints against anesthesiologists.

## 2. Materials and Methods

The routine database study was conducted on all complaints against anesthesiologists from the Medical and Forensic Medicine Organization of Rasht City from 2011 to 2015. All direct and indirect (i.e. complaints against a surgeon which involved anesthesiologist) complaints records that were referred to the primary board of the medical and forensic Organization of Rasht, as well as all reconsideration records were assessed. Next, the researchers referred to the Medical and Forensic Medicine

Organization of Rasht and all records of anesthesiologists' complaints were examined. Among all the complaints against physicians, complaints by non-surgeons and surgeons, were classified and 40 records including failure of anesthesiologists were assessed.

The data collection tool was a checklist including characteristics of the complainant's physician (gender, age, specialty, work experience), claimant characteristics (age, sex, marital status and education); characteristics of the location of the treatment (educational care center, private medical center, social security organization care center, private clinic), the causes of the complaint (death, defect, physical injury, and financial loss), type of defect (negligence, carelessness, non-compliance with government regulations, lack of skills), verdict (acquitted, convicted), and failure time during operation-anesthesia. Incomplete or inaccessible records were excluded. All data were entered into SPSS V. 16. The obtained data were reported by descriptive statistics (frequency, percentage).

## 3. Results

In this study, 40 complaints from anesthesiologists were recorded during 2011-2015. The patients who complained were mostly male (52%), married (72%), with diploma education (37%), and aged above 50 years (62.5%). Of these, 6 medical malpractice were occurred (15%). Most of the anesthesiologists aged <50 years (62.5%) and most of them (90.36%) were male (Table 1).

The highest rate of complaint from anesthesiologists was reported in 2014. In addition, 27 (67.5%) complaints were noted in educational care centers, 8 in (20%) private hospitals and 5 (12.5%) in public hospitals. The majority of complaints against anesthesiologists were assessed in the forensic medicine organization (40%), then in primary medicine organization (37.5%), and the lowest in the medical reconsideration board (22.5%).

A total of 31 (53.5%) complaints were related to general surgery. Also, 36 (90%) complaints were against anesthesiologists, types of anesthesiology, and general anesthesia (Table 2). In examining the type of injury and causes of complaints, results showed that patients' death in 22 (55%) cases, physician function in 9 (22.5%) cases, defect in 5 (12.5%) cases, personnel performance in 3 (7.5%) cases, physical injury in 2 (5%) cases and movement constraints in 1 (2.5%) case were the main causes of complaints.

The findings showed that out of malpractice, 36 cases (90%) were negligence and 21 (54.5%) were lack of

skill, 16 cases (40%) were carelessness, and 20 cases (5%) were non-compliance with state regulations. A total of 18 (45%) cases occurred during operation, 18 (45%) in recovery, 11 (27.5%) in ICU, 2 (5%) cases before surgery, and 2 after operation. Findings indicate that the verdict in the complaints against anesthesiologists in 85% of cases resulted in acquittal (Tables 1 and 2).

#### 4. Discussion

According to available statistical documents, the frequency of medical complaints has increased in recent years [2]. Besides the negative effect of complaints on

the performance of physicians, it can be waste of time and energy. Physicians with a history of complaint spend less time on patients visit than others [10, 11].

Studies have shown different reasons of complaints against physicians and also predictors for it [12]. They have demonstrated that a tight control and reporting of even concise medical errors are very important. Consideration of this issue makes patients' conditions become safer. Al Safi et al. in 2016 reported that the main cause of the medical errors and complaints against the physicians is the delay in performing the necessary interventions and inappropriate diagnosis. They considered assessing medical errors as an

Table 1. Frequency and percentage of the complaints

Variable	Definition	No.	%
Year of complaint	2011	5	12.5
	2012	7	17.5
	2013	6	15
	2014	12	30
	2015	10	25
Patient's gender	Male	21	52.5
	Female	19	47.5
Patient's age, y	>50	15	37.5
	<50	25	62.5
Patient's education	Illiterate	4	10
	Primary	7	17.5
	Secondary	4	10
	High school	6	15
	Diploma	15	37.5
	University degree	4	10
Marital status of the patients	Single	10	25
	Married	29	72.5
	Widow	1	2.5
Anesthesiologist's gender	Male	36	90
	Female	4	10
Anesthesiologist's age, y	>50	25	62.5
	<50	15	37.5

**Table 2.** Distribution of type of anesthesia and type of surgery

Variable	Definition	No.	%
Types of anesthesia	General	36	90
	Spinal anesthesia	1	2.5
	Local anesthesia	3	7.5
Types of surgery	Cosmetic surgery	0	0
	General surgery	21	52.5
	Orthopedic surgery	9	22.5
	ENT surgery	2	5
	Urology surgery	3	7.5
	Gynecology surgery	3	7.5
	Spinal surgery	2	5

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important issue even in the absence of harm to the patients [13]. The appropriate doctor-patient relationship and trust in medical profession is also important in preventing complaints [14, 15]. For instance, telling the truth creates patients and his family members' confidence in the physician and reduces the complaints rate [16].

Assessing different findings from several similar studies reveals that in many cases, patients do not complain for financial gain or inappropriate therapeutic consequences, but to protect future patients and punish the physician, especially when they receive no explanation and apologize [17]. In the medical field, The focus is commonly on medical topics, while medical students are required to know communication skills with the patients as well as the importance of considering legal issues such as obtaining informed consent and document registration during their course of study [17, 18]. Physicians should also consider updating their information [19]. Bell et al. reported that physicians who share visit notes with patients had a safer and more reliable relationship with patients [20].

Studies also demonstrate that majority of complaints are related to the large number of patients visited, lack of standard monitoring in the high risk patients, and absence of team work. Physicians who use more facilities and resources in patients' management encountered lower complaints [10]. In general, maximum attention and performance in line with medical standards is the best policy in preventing medical errors and consequent complaints against physicians [1]. Particularly anesthesiology

is an important field regarding the heavy responsibility of irreparable medical errors. Because of the significant role of anesthesiologists in preoperative, intraoperative, and postoperative period, it is necessary to mention all significant points, the procedures and informed consents in patients' records [4, 7].

In the present study, 40 complaints were recorded in the study time interval. The most complaints were reported from educational care centers, especially in general surgery ward and under general anesthesia that seems to be expected because in educational centers, most procedures are carried out by residents who are certainly less experienced than specialists. As a result, the responsible surgery and anesthesiology attending should spend more hours in the operating room and supervise the performance of their residents. Another reason for the occurrence of hazardous events for anesthesiologists at educational care centers is visiting a large number of patients.

A considerable finding of this research is that 90% of malpractices have been noted regarding medical negligence. According to the results of this study, 45% of complaints were reported from recovery room. A finding which was supported by Bastani et al. who mentioned the highest percentage of medical errors for patients under general anesthesia and the recovery room. The lack of sufficient care in recovery might be explained as the residents' willingness of assistants to perform procedures during induction of anesthesia, including the experience of using a variety of airway devices and the es-

establishment of invasive monitoring during anesthesia is not existed in recovery room. Therefore, necessary care in recovery rooms would be unavailable. The Intensive Care Unit (ICU) with 27.5% of complaints is also a high risk ward and litigation associated with this area is common and often follows a poor outcome [21].

Finally, similar to AL-Mazroea et al. study, 85% of the anesthesia litigation claims were acquitted [1]. It was reported as 9.1% in A Samarkandi in Saudi Arabia and 37.14% in Bastani et al. study in Shiraz [22, 23]. Differences among the findings of similar studies are observed which points to the different cultures, beliefs, and rules. Indeed it emphasizes the necessity of planning research focusing on this topic separately in different areas to reduce the rate of complaints against physicians and patients' safety by making attempts to fill the gaps in our practice.

In order to increase communication skills with the patients and increase knowledge in this field, standard training courses should be held for medical legal issues. Certainly observing clinical standards and ethical principles will not only protect physicians from legal constraints and its unpleasant consequences, but also protect the safety and health of the patients.

In the present study, the most common cause of complaints was cases that led to patients' death. This finding was different from studies conducted in some other countries, which focused on details such as the percentage of airway complaints, inadequate depth of anesthesia, and dental damage [24, 25]. It indicates insufficient assessments in our country and the need for paying more attention and exact analysis of previous litigation cases which improve future practice. Further and more complete studies are also recommended strongly.

## 5. Conclusion

Based on the results, a great concern over the performance of assistants in educational care centers, especially in general surgery wards is recommended. It is also necessary to carefully monitor patients' status in recovery rooms and use experienced personnel in recovery rooms and intensive care units.

## Ethical Considerations

### Compliance with ethical guidelines

The ethical approval code of this study is: IR.GUMS.REC.1395.60.

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## Authors contributions

All authors contributed in preparing this article.

## Conflict of interest

The authors declared no conflict of interest.

## References

- [1] Al Mazroea AH, Alturki AM. Frequency of medical errors complaints against medical health centers in Al Madinah Al Munawarah region of Kingdom of Saudi Arabia. *International Journal of Pharmaceutical Research & Allied Sciences*. 2017; 6(2):308-12.
- [2] Fayyaz AF. Complains About medical malpractices in Aja Hospitals submitted to Tehran Medical Council and Forensics. *Journal of Archives in Military Medicine*. 2015; 3(1):e24423. [DOI:10.5812/jamm.24423]
- [3] Aghakhani N, Alinejad V, Zarei A, Cheraghi R, Nazimi N, Allahverdi N, et al. [Study of causes of health providers' malpractices in records referred to Forensic Medicine Organization in Urmia, during 2009-2013 (Persian)]. *Medical Law Review*. 2017; 11(42):83-100.
- [4] de Castro TL, Fernandes MM, Rosa RO, de Oliveira RN, Júnior ED. How to avoid legal problems in cases of nerve injury due to dental implants. *Réseau de Recherche en Santé Buccodentaire et Osseuse*. 2017; 13(4):265-9. [DOI:10.21726/rsbo.v13i4.349]
- [5] Agout C, Rosset P, Druon J, Brilhault J, Favard L. Epidemiology of malpractice claims in the orthopedic and trauma surgery department of a French teaching hospital: A 10-year retrospective study. *Orthopaedics & Traumatology*. 2018; 104(1):11-5. [DOI:10.1016/j.otsr.2017.11.007]
- [6] Özdemir MH, Çekin N, Can İÖ, Hilal A. Malpractice and system of expertise in anaesthetic procedures in Turkey. *Forensic Science International*. 2005; 153(2-3):161-7. [DOI:10.1016/j.forsciint.2004.08.016] [PMID]
- [7] Yang H. Professionalism in anesthesia. *Canadian Journal of Anesthesia*. 2017; 64(2):149-57. [DOI:10.1007/s12630-016-0738-3] [PMID]
- [8] Ali MR, Rahman J, Khatun R, Adom S, Khan KR. Modern Anesthesia and its medico-legal aspects. *KYAMC Journal*. 2017; 7(2):806-9. [DOI:10.3329/kyamcj.v7i2.33843]
- [9] Mahfouzi A, Taghadosinezhad F, Abedi Khourasgani H. [A 6 years study on anaesthesiologist's medical malpractice cases referred to Tehran medicolegal commission (1994-1999) (Persian)]. *Scientific Journal of Forensic Medicine*. 2002; 8(26):4-10.



- [10] Jena AB, Schoemaker L, Bhattacharya J, Seabury SA. Physician spending and subsequent risk of malpractice claims: Observational study. *BMJ*. 2015; 351:h5516.
- [11] Waxman DA, Kanzaria HK. Physician spending and risk of malpractice claims: Defensive medicine may not be as common as we think. *BMJ*. 2015; 351:h6768. [DOI:10.1136/bmj.h6768] [PMID]
- [12] Studdert DM, Bismark MM, Mello MM, Singh H, Spittal MJ. Prevalence and characteristics of physicians prone to malpractice claims. *New England Journal of Medicine*. 2016; 374(4):354-62. [DOI:10.1056/NEJMsa1506137] [PMID]
- [13] Alsafi E, Baharoon S, Ahmed A, Al Jahdali H, Al Zahrani S, Al Sayyari A. Physicians' knowledge and practice towards medical error reporting: A cross-sectional hospital-based study in Saudi Arabia. *Eastern Mediterranean Health Journal*. 2015; 21(9):655-64. [DOI:10.26719/2015.21.9.655]
- [14] Bowman D, Spicer J. Truth, trust and the doctor-patient relationship. Oxford: Radcliffe Publication; 2018.
- [15] Yadav M, Rastogi P. A study of medical negligence cases decided by the district consumer courts of Delhi. *Journal of Indian Academy of Forensic Medicine*. 2015; 37(1):50-5. [DOI:10.5958/0974-0848.2015.00011.1]
- [16] Rising ML. Truth telling as an element of culturally competent care at end of life. *Journal of Transcultural Nursing*. 2017; 28(1):48-55. [DOI:10.1177/1043659615606203] [PMID]
- [17] Adams J, Bell M, Bodenham A. Quality and outcomes in anaesthesia: Lessons from litigation. *British Journal of Anaesthesia*. 2012; 109(1):110-22. [DOI:10.1093/bja/aes188] [PMID]
- [18] Rosenbaum ME, Ferguson KJ, Lobas JG. Teaching medical students and residents skills for delivering bad news: A review of strategies. *Academic Medicine*. 2004; 79(2):107-17. [DOI:10.1097/00001888-200402000-00002] [PMID]
- [19] Ghaffar UB, Ahmed SM, Faraz A. A review of the frequency of medical error in Saudi Arabia: An emerging concern. *Journal of Evidence Based Medicine and Healthcare*. 2015; 2(52):8692-5. [DOI:10.18410/jebmh/2015/1205]
- [20] Bell SK, Mejilla R, Anselmo M, Darer JD, Elmore JG, Levaille S, et al. When doctors share visit notes with patients: A study of patient and doctor perceptions of documentation errors, safety opportunities and the patient-doctor relationship. *BMJ Quality & Safety*. 2016; 26(4):257-8. [DOI:10.1136/bmjqs-2016-005641]
- [21] Pascall E TS, Georgiou A, Cook TM. Litigation associated with intensive care unit treatment in England: An analysis of NHSLA data 1995-2012. *British Journal of Anaesthesia*. 2015; 115(4):601-7. [DOI:10.1093/bja/aev285] [PMID]
- [22] Samarkandi A. Medico-legal liabilities of anesthesia practice in Saudi Arabia. *Middle East Journal of Anesthesiology*. 2006; 18(4):693-706.
- [23] Bastani M, Hejazi A, Zarenejad M, Shahriary S, Sahmeddini MA. [Malpractice cases of anesthesiology leading to death or impairment referring to Shiraz forensic medicine commissions during 2006-2011 (Persian)]. *Razi Journal of Medical Sciences*. 2014; 21(122):61-7.
- [24] Cook T, Scott S, Mihai R. Litigation related to airway and respiratory complications of anaesthesia: An analysis of claims against the NHS in England 1995-2007. *Anaesthesia*. 2010; 65(6):556-63. [DOI:10.1111/j.1365-2044.2010.06331.x] [PMID]
- [25] Kent CD. Awareness during general anesthesia: ASA closed claims database and anesthesia awareness registry. *ASA Monitor*. 2010; 74(2):14-6.