

MEDICO-LEGAL LIABILITIES OF ANESTHESIA PRACTICE IN SAUDI ARABIA

ABDULHAMID SAMARKANDI*

Abstract

Objective: The aim of this paper is to reveal the anesthesia malpractice claims that were referred to the National Medico-Legal Committee (MLC) in Riyadh KSA, in order to evaluate the magnitude and underlying factors of its medico-legal litigations.

Methods: The official records-including incidence, location, and final resolution of each claim-of all anesthesia-related medico-legal malpractice claims over the period attending from 1420-1424H (1999-2003 AD), were critically analysed.

Results: A total 1765 cases were referred to the various MLC over the five-year period. An increasing trend of the total number of yearly claims was observed with a sharp increase between 1422-1424H (2001-2003 AD). The private sectors and Ministry of Health services both contributed 90% of the total number of claims. Of the total number of claims, referred anesthesia-related malpractice claims consisted of 76 cases (3.8%) of which legal action against anesthesiologists was taken in 7 cases (9.1%).

Conclusion: Of the anesthesia litigation claims, 9.1% resulted in

* FFARCSI, KSUF, Chairman, Anaesthesia Dept., King Khalid Univ. Hosp., King Saud Univ., Riyadh, KSA.
Active member of the Medico-Legal Committee (MLC) in Riyadh region under the authority of the Ministry of Health (MOH) in Saudi Arabia.
Corresponding Author: Abdulhamid Samarkandi, FFARCSI, KSUF, Chairman, Anaesthesia Department, King Khalid University Hospital, King Saud University. P.O. Box: 7805 internal 41, Code 11472. Tel: +9661/4670898. Fax: +9661/4679364. E-mail: ahsamark@ksu.edu.sa.

positive legal action. More than one anesthesiologist may be involved for a given claim, and anesthesiologist may share partial responsibility with the surgeon in claims primarily targeting surgery or an incident of resuscitation. It is concluded that adherence to the standards of medical practice, is by far, the best policy to avoid or reduce the incidence of litigation.

Key words: Medical liability, Anesthesia malpractice claims, Saudi Arabia.

Prologue

This study examines pre-collected data of the Medico Legal Committee in Ministry of Health. It covered the period where neither medical malpractice insurance were available, nor the postmortem studies of deceased patients. The claims originated by patients themselves or next of kin family's member, requesting compensation according to Islamic Shariaah governing the Saudi nation. The accused medical person (defendant) is judged by Legal Committee and who had to defend his clinical decisions and judgment to a medical expert committee. No representation of the professional association, Saudi Anesthesia Society, in the proceedings is allowed.

Regardless of the above limitations, the merit of this paper consists of its being the first time that access to Court proceedings and publication of anesthesia related medico-legal actions have been undertaken.

Introduction

Health Care Services in Saudi Arabia had witnessed great evolution over the past two decades, touching all major health sectors: governmental and private. This development in health care is attributed to the upgrading technology, the facilities as well as the training and improved experience of the medical practitioners¹. However, the increasing number of population together with the increased awareness

regarding health matters, resulted in increasing trends of medical practice litigations¹. This is reflected in the increased number of complaints and claims against health care providers (service facility, physicians and related staff).

To handle such an impact, the Minister of Health approved a set document of medical standards and regulations that determine the responsibilities of health care providers towards their patients. The Medico-Legal Committee (MLC) carries the responsibility of receiving claims from dissatisfied patients or their representatives, and of investigating the professional malpractice that resulted in either a morbidity or mortality.

The process of investigations involves a thorough review of all patient's medical files and records as well as an interview with the presumed accused medical staff members, in order to reach a verdict.

Regardless of whether the defendant is acquitted or convicted, anesthesia has been classified as a high risk specialty². This classification was based on the fact that the state of hypnosis may result in airway obstruction, pulmonary aspiration or trauma². Also, the anesthetic drugs may have undesirable adverse effects on both the cardiovascular and respiratory systems. The anesthetized patient is totally dependent on the anesthetist and equipments for maintenance of patient's vital activities².

Recently³ the medical and other specialties litigation claims in KSA was published. It concentrated on surgical aspects but reported briefly on anesthesia malpractice claims. This induced the author to analyse the anesthesia malpractice claims studied in the MLC.

The analysis includes the causes and magnitude of anesthesia malpractice claims in relation to other medical specialties. Hopefully, this will have an impact to updating the regulations of MLC as well as providing useful professional and legal information to practicing anesthesiologists in the KSA.

Methods

Critical analysis of the official records (incidence, location, and final resolution of each claim) of all anesthesia-related medico-legal malpractice claims over the period 1420-1424H (1999-2003 AD) was conducted. The raw data of the study is kept by MLC of the Ministry of Health (MOH), Riyadh; Kingdom of Saudi Arabia.

Those claims need the judgment of Shariaah Judge who presides over MLC together with representatives of medical bodies of MOH, and the University. The claims that were solved in the regional MLC level without the need of the Judge, were not included.

The data included total claims against various medical specialties, that were sent by all Medico-Legal subcommittees [Six subcommittees upgraded to eight subcommittees thereafter during (1423-1424H 2002-2003 AD) covering all regions of Kingdom of Saudi Arabia].

Data were provided in table forms identifying the following:

- 1 – The number of MLC monthly sessions in each region held over the year.
- 2 – The number of claims investigated in each subcommittee over the year.
- 3 – The justified final decision of conviction or acquittal of the claim.
- 4 – The number, medical specialty and qualification of physicians involved.
- 5 – The detailed number of physicians, nurses or technicians convicted or acquitted after interrogations.
- 6 – The rank of the medical facility involved in the claim.

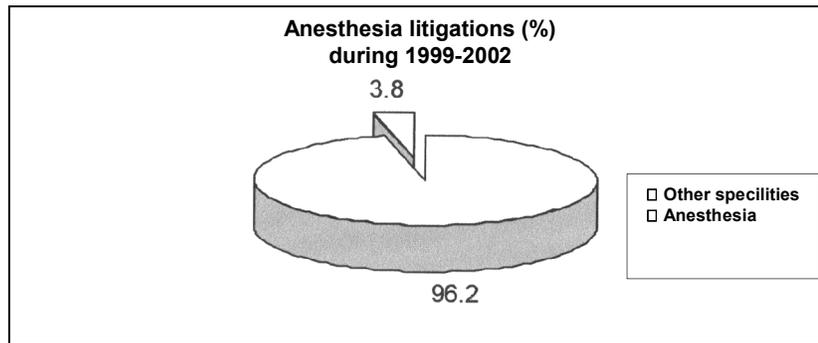
The data were searched for anaesthesia-related medical malpractice claims and its linkage to other presented claims, was established.

Results

A total 1765 litigation claims studied between (1420-1424H 1999-2003 AD) from available total of 2970 cases filled for processing, were reviewed. Most of claims originated from Saudi nationals (86.3%) claims and from non-Saudi expatriates (13.7%). Anesthesia-related malpractice claims consisted of 76 cases (3.8%) of the total number of claims referred to the MLC, involving 80 anesthesiologists 72 (90%) males, and eight (10%) females (Fig. 1).

Legal action against anesthesiologists was taken in seven cases (9.1%) which were from cases treated in private medical facility, Ministry of Health (MOH), Military or university’s medical services in various cities of Kingdom of Saudi Arabia (KSA). (Fig 2)

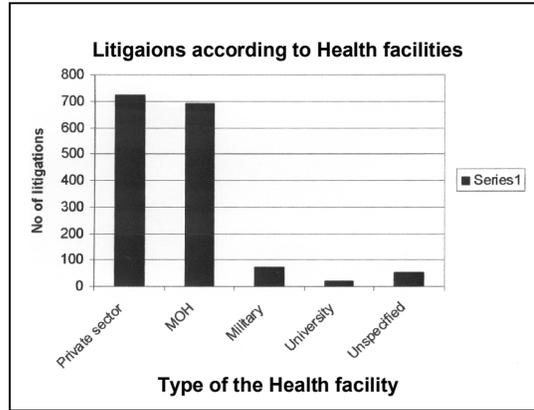
*Fig. 1
Anesthesia litigation cases (%) amongst all other specialties*



The certification of convicted anesthesiologists were as follows:

Master degree	44 (55%),
PhD	26 (32%),
Anesthesia Diploma	6(7.5%)
MB Ch B	4(5%) (Fig. 2).

*Fig. 2
The medical malpractice litigation in various health sectors in MLC in MOH in Riyadh KSA in the period (1420-1424 H) (1999-2003 AD)*



An increasing trend of the total number of claims in different medical specialties over the study period, was observed (Fig. 3). Of a total of 670 mortality verdicts, 276 (41%) were acquitted and 394 (59%) were convicted (Fig. 5).

*Fig. 3
Increasing trend of total litigation cases studied in MLC in Riyadh showing from left to right total number presented yearly of all medical specialties, medical specialties except anesthesia, then Anesthesia and intensive care cases*

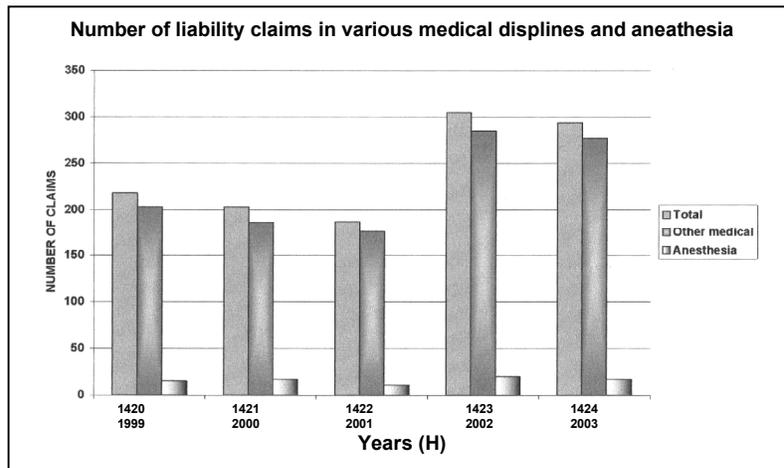


Fig. 4
 Mortality and non-mortality claims studied during the period of the study (1420-1424H) (1999-2003 AD)

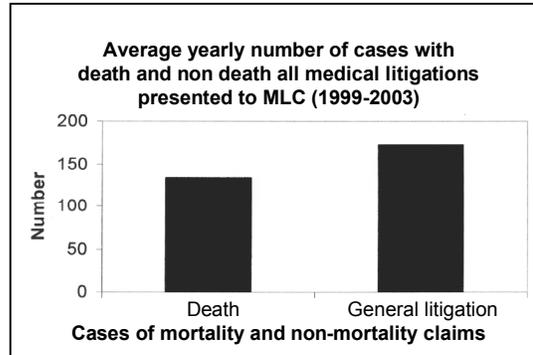
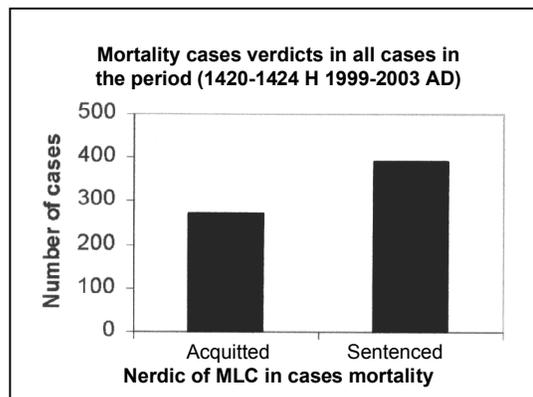


Fig. 5
 Death litigations in all medical specialties (Total 670 cases during the period of 1420-1424H 1999-2003 AD)
 acquitted = 276.
 Sentenced = 394



There were no specific anesthesia claims in the records of other medical subspecialties. However, there were overlapping responsibilities in obstetric, general surgery, pediatric surgery, intensive care and resuscitation, where the anesthesiologist had shared responsibility.

Specific litigation claims special to anesthesia perse consisted of dental loss during intubation, death outcome from severe bleeding, failed intubation, or inadequate postoperative care.

Discussion

The 10-years indexed local literature has very few references regarding liability issues in KSA². A recent article³, however, discusses

the activities of MLC in KSA and reviews the results on part of the study period. Some overlapping existed but issues addressed in the present study did not appear in that paper³.

MLC rules and regulations governing medical practice.

The MLC receives complaints from the public regarding any morbidity or mortality caused by “alleged medical malpractice”. This is followed by a process of thorough review of patient’s documents during illness written by attending physicians as well as study of other medical files. A MLC session is then assigned for interviewing both sides of the claim-the plaintiff and defendant(s). Total number of MLC sessions held in that period counted more than 4500 sessions.

To reach a final verdict (convicted or acquitted), the “Regulations of Medical Practice” based on professional aspects and governed by Islamic Shariaah law, are followed¹.

Professional liability as an entity covers three different aspects:

1 – The Civil liability, which is the responsibility of a physician in protecting the patient from harm inflicted as a result of wrong direct action, i.e. proven negligence.

2 – The Punitive liability, that deals with physicians who violate rules and regulations of medical practice, even with no subsequent harm resulting to the patient, and

3 – The Disciplinary liability, where a physician failed to meet the professional standards, requirements and ethics¹.

A claim may lead to a verdict of one or more of the following:

1. Issuing administrative warning
2. Financial compensation, to the patient or his dependents, according to Islamic Shariaah law,
3. Prohibiting the physician from medical practice and withdrawal of his medical license, or
4. Imprisonment in some cases¹.

The increased trend in number of litigation over the study period could be attributed to the increased number of population as well as the increased number of medical facilities. However, increased litigations could also be due to the higher expectation and demands of people who have become more aware of current standard medical care. A sharp increase in number of claims was noted in the transition between (1423-1424H 2002-2003) and was related to the institution of two new MLCs; one in the Holy Capital Mecca and one in Ehsaa.

The anesthesia-related malpractice claims in relation to the total number of claims has been shown to be 3.8%. However, looking at the number of convicted physicians, the anesthesia-related malpractice constitutes only seven cases (9.1%) taking into consideration that more than one anesthesiologist may be charged in one given case and anesthesia may overlap in sharing responsibility with other surgeries, obstetric and incidents of resuscitation claims.

Different articles and meta-analysis studies worldwide tackling the scope of anesthesia-related malpractice, confirm the fact that cardio-respiratory arrest and cerebral damage resulting from hypoxemia were the leading causes of mortality or drastic morbidity²⁻⁵.

Oxygen supply to the patient is of the highest concern, defect in alveolar gas exchange or oxygen delivery to the tissues, equipment failure or compromised upper airway with the inability to adequately ventilate a hypnotized, sedated and/or paralyzed patient², is of paramount concern.

Neuroaxial deficits resulting from regional anesthesia techniques is considered the second common cause, but with a wide range of consequences ranging from simple as transient neurapraxia, up to permanent loss of function resulting from peripheral nerve damage or spinal cord injury². In the Western World, lawsuits against intraoperative awareness are not uncommon with its psychological drawbacks on patients in the postoperative period⁶⁻⁸. In contradistinction in our series, only dental damage and mortality were reported by the claimers to MLC requesting for compensation.

Examples of anesthesia-related malpractice cases:

1 Death of a Morbidly obese patient

A case of a morbidly obese patient scheduled for elective gastric bypass surgery ended fatally, in spite of the fact that the patient was free from medical illness and properly prepared preoperatively with 16 hours fasting. He received standard premedication to guard against regurgitation and aspiration. No cause for an anticipated difficult intubation is stated by the anesthetist in the preoperative visit. Induction of anesthesia was performed safely. Cisatracurium was used to facilitate tracheal intubation, which was successful from the first attempt. The correct position of the tracheal tube was confirmed by auscultation and by Capnogram. Hypoxemia was noted 10-15 minutes after intubation, diagnosed, according to the anesthetist's statement, to be resulting from "either a severe bronchospasm or pulmonary edema as the airway pressure increased reaching up to 40 cmH₂O and endotracheal suctioning revealed a little of "watery secretions". The situation was properly managed but necessitated the postponement of surgery. The patient was transferred to the intensive care unit ICU and ventilated. The treating team failed to wean the patient from mechanical ventilation, and consequently the patient died.

The Verdict: The anesthetist was convicted of not following the standard of anesthetic practice. It was considered that in a morbidly obese patient suxamethonium is the drug of choice to facilitate rapid sequence intubation.

2. Maternal Mortality due to bleeding during Cesarian secction

A breech presentation case presented for emergency cesarian section in P₁₁₊₁ patient. During the procedure intractable hemorrhage started. The attendants found no available blood and mortality followed six hours postoperatively.

The verdict: The anesthetist was accused of negligence for two

reasons. First, for not making sure of availability of blood before induction of anesthesia, and secondly, which is the more interesting-. that no anesthesia record existed and that the anesthetist only filled up progress notes in patient chart so that there was no documentation of his intraoperative management. This was considered by the MLC Committee as a case of negligence and decided that the anesthetist should share the financial compensation with the obstetrician.

3. Death of a diabetic patient for emergency perianal abscess

A diabetic patient was admitted for emergency perianal abscess drainage. His pre-operative blood sugar analysis was 235 mg%. The patient received 10 i.u. of insulin preoperatively for controlling high blood sugar. Postoperatively, the anesthetist ordered to continue on normal saline solution and not on Dextrose 5% solution (as ordered by the surgeon) and without evaluating this patient's blood sugar level regularly. Severe hypoglycemia encountered postoperatively resulted in severe cardio-respiratory depression and arrest. The patient was declared dead five days later.

The verdict: It is well known that a delayed effect of insulin could be happen resulting in hypoglycemia. The anesthetist was convicted of not following the standards of medical practice as well as negligence in following his patient.

4. Death of a two years old child after road traffic accident (RTA)

A two year old child, who sustained an RTA, was admitted to the surgical floor after surgery in a stable clinical condition (not to the intensive care unit). Three hours after surgery, the child developed three attacks of convulsions. During this period the anesthetist was consulted three times and responded only by phone and did not attend to evaluate his patient.

The verdict: The anesthetist was convicted of major negligence for

not following his patient properly.

The main aim of giving important details about cases is to widen the scope of anesthetists for matters that may be considered out of their responsibility and who may believe that their main role is only intra-operative management. This should not lead to “defensive medicine” attitude but rather to implement a safe practice of medicine for the patient which is our ultimate interest³.

Nonetheless, law ranking and poor setup of the medical facilities play an important role in the increased incidence for litigations. Data analysis revealed that the MOH and private sectors contributes more than 90% of the total number of claims that were referred to the MLC. The MOH hospitals or small clinics cover most of the small cities and that most of these facilities are run by under-trained and under-staffed physicians together with inadequate equipment and supplies, a fact which renders such facilities more prone for malpractice and litigations³. In the private sector, despite the fact that it is mostly well equipped and staffed, yet reduction of costs being a main consideration, may pave the way to substandard practice conditions. Furthermore, patients going to the expensive private sector-considering their culture and social class-are more demanding for a quality care health service³.

Monitoring the standard: “Policies and Procedures”, “Rules and Regulations”, “Standards of Medical Practice” all grouped fall into the same concern, that is quality assured medical service that ensures patient safety. Following set standards could also restrict the magnitude of medical errors, classified by the Agency for Health Research and Quality as: diagnostic error, equipment error, misinterpretation of medical orders or data, mismanagement with resultant morbidity, postoperative infections or mismatched blood transfusion, all of which could be easily applied to the field of anesthetic practice¹⁰.

Based on the experience gained in studying cases of MLC, the following lessons and advices could help in avoiding anesthesia-related malpractice claims:

1. In the preoperative visit assess your patient thoroughly, ask for

consultations of different specialties so as to properly prepare your patient to the stress of both anesthesia and surgery.

2. Estimate accurately the patient risk and discuss it in details with the patient and the surgeon, a fact which should be mentioned in patient consent form before surgery.

3. Discuss the risk of anesthesia with your patient (and his/her family) and give them the risk estimate of any procedure to be performed (e.g.: neuroaxial block, central venous cannulation, etc).

4. Discuss your anesthetic plan, whether intraoperative or postoperative, with more specialized or senior colleagues and ask for their help in case of anticipated stormy situations.

5. Clearly document every detail of information (with date and time) is the corner stone that backs you up in case of incidents claims.

6. Follow up your patient closely in the postoperative period especially in risky patients or those situations where intraoperative events had been encountered.

7. Update your professional knowledge and skills, obviously the best way to gain confidence and respect of the medical staff as well as the well-informed patients or their family members.

8. Other procedures which may influence the quality of care could be achieved by Continuing Medical Education, Audits, Clinical incident reporting and Case discussions, Morbidity and Mortality meetings, and by standards of training that could be revisited annually as in Advanced Cardiac Life Support and Advanced Trauma Life Support.

9. In case you had been involved in an incident and called for interrogation, review the whole case beforehand and write down specific and important events. You could also refresh your memory with the patient filling and records during the interview session. Further, quote relevant literature which could strengthen your position in practical and professional matters. It is permissible to provide your testimony in writing and to be recorded as such.

In conclusion, the consequences of an error are disastrous, and

prophylaxis is by far much easier than dealing with litigations. Ensuring a safe and effective method of medical practice is the prime duty of the practitioner. The safe and practical way of anesthesia practice should be based on standards of medical practice. Regrettably no one is immune against pitfalls and mishaps so let us pray to Allah to provide us with his protection and mercy and give us the strength and ability to serve our patients safely.

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