Abstract

The practice of medicine is becoming increasingly more complex. Physicians and other healthcare providers face increasing administrative and legal challenges. Medical malpractice claim puts physician's finances, reputation, professional advancement, personal relationships and health at risk. In Egypt, medical malpractice problem has been magnified during the last few years. The aim of this study was to throw light on medical malpractice claims in Dakahlia and Damietta regions. Results of the present study showed that there is annual increment in the number of claims. According to specialty, anesthesia was the highest percentage followed by surgery and gynecology/obstetrics. By locality, most claims were against central hospitals followed by private, general and least was university hospitals. However, claims were proved positive mostly in private hospitals followed by central, general and lastly university hospitals. For private hospitals, the most proven claims were for gynecology/obstetrics, then anesthesia but for central hospitals, anesthesia represented the most proven claims followed by surgery. Good medical practice and a good medical-patient relationship are still the best ways to minimize lawsuits and their repercussions.

Keywords: Medical malpractice; Dakahlia; Damietta; Egypt

Introduction

Deaths from medical malpractice exceed that from motor vehicle crashes, breast cancer or AIDS in the United States [1]. However, the number of iatrogenic complications described in literatures, although high, is only really the tip of the iceberg [2]. Between 1991 and 2005, 7.4% of all UK physicians had a malpractice claim, with 1.6% having a claim that led to an indemnity payment [3]. In Egypt, medical malpractice problem has been magnified during the last few years [4].

Educational efforts and other strategies aimed toward increasing practitioners’ understanding of their liability risks may reduce those risks [5]. But, healthcare costs will likely worsen as physicians increasingly practice defensive medicine, thereby over utilizing resources with the goal of documenting diligence, prudence, and skill as defenses against potential litigation, rather than aimed at any patient benefit [6,7]. Therefore, it is imperative that physicians develop an understanding of basic substantive and procedural law; first, so that their practices can be more focused and rewarding and less a fear of the unknown; second, that they can work proactively to minimize their legal risk; third, so that they can better communicate with risk managers, attorneys, and insurers; and finally, so that they can better understand and participate in future legal, legislative, regulatory, and public policy development [8].

The aim of this study was to throw light on medical malpractice claims in Dakahlia and Damietta governorates. Knowledge of the details about liability claims should assist practicing physicians in improving quality of care, reducing patient injury, and reducing the incidence of medical malpractice claims.

Methods

This is a (chart reviewer) retrospective study of claims of medical malpractice in Dakahlia and Damietta Governorates examined by Dakahlia local office of forensic medicine - Ministry of Justice during the period from 1996–2005. Claim files were examined for the type of medical service performed, specialty of the defendants, location of the medical service and the final outcome. Dakahlia locality has one university hospital (Mansoura University Hospital) and many governmental (public) hospitals in the form of general hospitals (the largest) and central hospitals (smaller), beside private hospitals.

Statistical analysis

The data were collected and entered the computer. Data were presented in the form of number and percentage. Chi-square with Yates correction was used as a test of significance for data when the expected cell less than 5. Chi-square test was used as test of significance for quantitative data when the expected cell more than 5. Significance was considered when p value is less than 0.05.

Results

The number of claims over the 10 years period was 1355 claims. As shown in Table 1, the number of these claims increased from 69 claims in 1996 to 203 claims in 2005 (Figure 1). According to specialty, anesthesia (403 claims) was the highest percentage followed by surgery (282 claims) and gynecology/obstetrics (209 claims) (Figure 2). Other specialties were in the following decreasing order of frequency: orthopedics, ophthalmology and ENT. Urology, neurosurgery, cardiothoracic surgery, oncology,
vascular, pediatrics and medicine represented less than 5%. Two cases of dentistry were filed only in 2004. Anesthesia was filed most frequently in 2000 (36.3%) and decreased to be least in 2005 (24.1%). By using chi-square with Yates correction no significant difference was detected between the numbers of filed cases over the study period for all specialties.

By using chi-square with Yates correction there is significant increase in medical error in private than university in obstetric and anesthesia. Also, there is significant increase in medical error in central hospitals than university hospitals in anesthesia. By using chi-square test, there are significant increases in reporting the medical error in private and central hospitals than university hospitals (Table 2).

By locality (Table 2 & Figure 3), most claims were against central hospitals followed by private, general and least were university hospitals. However, claims were proved positive mostly in private hospitals (29.9 %), followed by central (22.8 %), general (15.7 %) and lastly university (11.3 %) hospitals (Table 2). For private hospitals, the most proven claims were for gynecology/obstetrics, then anesthesia but for central hospitals, anesthesia represented the most proven claims followed by surgery (Figure 4 & 5).
Figure 4: The Locations and the Most Common Specialties of Medical Claims along the Period 1996 to 2005.

Figure 5: The Incidence of Positive Cases in Different Locations of Medical Claims along the Period 1996 to 2005.

Table 1: The Number and Percentage of Reported Cases of Malpractice in Different Specialties during the Period from 1996 to 2005.

| Year | Obstetrics | Surgery | Anesthesia | Orthopedic | Urology | Neurosurgery | Cardioc-thoracic Surgery | ENT | Oncology | Vascular | Pediatric | Medicine | Dentistry | Total |
|------|------------|---------|------------|------------|---------|--------------|--------------------------|-----|----------|----------|-----------|----------|-----------|-------|
| 1996 | 13 (18.8)  | 19 (27.5)| 23 (33.3)  | 8 (11.5)   | 1 (1.4) | 0 (0)        | 0 (0)                    | 3   | 0 (0)    | 0 (0)    | 0 (0)     | 0 (0)    | 0 (0)     | 69 (100)|
| 1997 | 12 (14.1)  | 21 (24.7)| 27 (31.8)  | 11 (12.9)  | 0 (0)   | 1 (1.2)      | 0 (0)                    | 4   | 1 (1.2)  | 0 (0)    | 0 (0)     | 2 (1.2) | 1 (1.2)   | 85 (100)|
| 1998 | 15 (15.3)  | 21 (21.4)| 34 (34.6)  | 13 (13.2)  | 2 (2)   | 1 (1)        | 0 (0)                    | 6   | 1 (1.2)  | 0 (0)    | 5 (1.8)  | 0 (0)    | 0 (0)     | 98 (100)|
| 1999 | 21 (17)    | 25 (20)  | 37 (30)    | 16 (13)    | 5 (4)   | 2 (1.6)      | 1 (0.8)                  | 7   | 9 (7.3)  | 0 (0)    | 0 (0)     | 1 (1.8) | 0 (0)     | 123 (100)|
| 2000 | 17 (14)    | 28 (23.1)| 44 (36.3)  | 12 (9.9)   | 4 (3.3) | 0 (0)        | 2 (1.3)                  | 10  | 10 (8.2) | 1 (0.8) | 0 (0)     | 1 (1.8) | 0 (0)     | 121 (100)|
| 2001 | 22 (14.9)  | 29 (19.7)| 45 (30.6)  | 19 (12.9)  | 0 (0)   | 1 (0.8)      | 0 (0)                    | 14  | 14 (9.5) | 2 (1.2) | 0 (0)     | 2 (1.2) | 0 (0)     | 147 (100)|
| 2002 | 24 (15.3)  | 32 (20.5)| 45 (28.8)  | 24 (15.3)  | 0 (0)   | 1 (0.8)      | 2 (1.3)                  | 16  | 13 (8.3) | 0 (0)    | 0 (0)     | 0 (0)   | 0 (0)     | 156 (100)|
| 2003 | 23 (13.3)  | 36 (20.9)| 51 (29.6)  | 21 (12.2)  | 8 (4.6) | 1 (0.8)      | 2 (1.1)                  | 17  | 16 (9.3) | 13 (7.1) | 4 (6.4)  | 2 (2.7) | 1 (1.2)   | 172 (100)|
| 2004 | 28 (15.4)  | 33 (18.2)| 47 (25.9)  | 26 (14.3)  | 9 (4.9) | 1 (0.8)      | 2 (1.1)                  | 20  | 15 (8.2) | 13 (7.1) | 9 (4.9)  | 6 (2.9) | 6 (2.9)   | 181 (100)|
| 2005 | 34 (16.7)  | 38 (18.7)| 49 (24.1)  | 29 (14.2)  | 6 (2.9) | 2 (1.2)      | 1 (1.4)                  | 20  | 18 (8.8) | 17 (8.3) | 6 (2.9)  | 2 (1.9) | 2 (1.9)   | 203 (100)|
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Table 2: The Number and Percentage of Reported Cases of Medical Malpractice in Different Specialties According to Hospital Type during the Period from 1996 to 2005.

| Specialties        | University Hospital | General Governmental Hospital | Central Governmental Hospital | Private Hospitals |
|--------------------|---------------------|-------------------------------|-------------------------------|------------------|
|                    | N +ve | - ve | N +ve | - ve | N +ve | - ve | N +ve | - ve |
| Obstetrics         | 20    | 3    | 17    |      | 23    | 7    | 16    |      |
| Surgery            | 37    | 5    | 32    |      | 86    | 18   | 68    |      |
| Anesthesia         | 22    | 4    | 18    |      | 69    | 12   | 57    |      |
| Orthopedic         | 14    | 1    | 13    |      | 43    | 4    | 39    |      |
| Urology            | 8     | 0    | 8     |      | 13    | 1    | 12    |      |
| Neurosurgery       | 3     | 0    | 3     |      | 0     | 0    | 0     |      |
| Cardiotoracic      | 6     | 1    | 5     |      | 0     | 0    | 0     |      |
| Surgery            | 6     | 0    | 6     |      | 19    | 3    | 16    |      |
| ENT                | 15    | 1    | 14    |      | 48    | 2    | 46    |      |
| Oncology           | 3     | 0    | 3     |      | 0     | 0    | 0     |      |
| Vascular           | 6     | 1    | 5     |      | 0     | 0    | 0     |      |
| Pediatric          | 2     | 0    | 2     |      | 1     | 0    | 1     |      |
| Medicine           | 0     | 0    | 0     |      | 0     | 0    | 0     |      |
| Dentistry          | 0     | 0    | 0     |      | 0     | 0    | 0     |      |
| Total              | 142   | 16   | 126   |      | 306   | 48   | 258   |      |

Discussion

In the last years doctors have been the target of a growing number of civil, criminal law suits, as well as ethical procedures. The practice of medicine is increasingly affected by government regulations, social pressures and public expectations [9]. Thus, medical responsibility is not only a legal problem but a wider more complex issue of great social importance [2]. In addition to increased numbers of claims filed against doctors, the size of payments to allegedly injured patients has increased dramatically [10]. Poor and uninsured patients are at risk of injury from poor care. They receive much of their treatments in busy emergency centers from trainees, with minimum lengths of hospital stay and receive treatment in overburdened community clinics [11].

Of the 10% hospitalized patients who suffer injuries, only 2% file a malpractice claim. Of these malpractice claims, about 80% show no signs of a negligent injury. In spite of that, this study showed that there is annual significant increment in the total number of medical malpractice claims. This augments previous results of Hafez AA et al. [4], who studied medical malpractice claims in middle delta region (Gharbia and Menoufia) from 2000 to 2004, where total cases were 120. In Assuit during 13 years (1979-1991) only 26 claims were raised [12]. Meanwhile, in Greater Cairo, 64 claims were raised from 1973 to 1979 [13] that increased to be 2043 cases from 2000-2003 [14]. This increment may be, as Hafez AA et al. [4] suggested, due to increase in the number of general population [15], increased awareness of individual's rights, appearance of lawyers specialized in compensation lawsuits encouraging patients to raise malpractice lawsuits for getting monetary compensation and/ or patients may believe that most medical injuries are attributable to negligence.

In the present study, anesthesia represented the highest percentage of claims followed by general surgery then gynecology/obstetrics, orthopaedics and ophthalmology. However, according to Hafez AA et al. [4], claims against obstetricians/gynecologists were significantly higher followed by general surgery then orthopaedics, ophthalmology and anesthesia. But, general surgery had the highest percentage of positive cases followed by obstetrics/gynecology then anesthesia. The most common faults in malpractice cases were failure to take adequate measures to treat complications, left surgical instruments and swabs and wrong surgical techniques [4].

In contrast, claims against general surgeons were the most frequent followed by obstetricians/gynecologists in Greater Cairo. However, the most frequent positive cases were against obstetricians/gynecologists [14]. Also, obstetricians/gynecologists were the most frequently sued physicians followed by general surgeons in an American study [16]; in a Saudi Arabian study [17] and in a Turkish study [18]. Meanwhile, in Italy, orthopaedics was responsible for the highest number of cases filed relating to alleged malpractice, followed by obstetrics/gynecology [10,19]. In the same time, Madea B & Preuss J [20] studied autopsied cases of malpractice and found that surgery was the most affected by claims although confirmed cases were below the average. Moreover, in a Japanese study, internal medicine was the most frequently affected specialty followed by general surgery then gynecology/obstetrics [21].
This high incidence of malpractice in surgery and obstetrics may be attributed to the fact that surgeons are engaged in high-risk and/or invasive work and in obstetrics there is a chance for complication for the mother and/or the fetus [4].

Central hospitals were the commonest place where claims were filed followed by private, general and least was university hospitals. But claims were proved positive mostly in private hospitals. For private hospitals, the most proven claims were against gynecologists/obstetricians but for central hospitals, anesthesia represented the most proven claims. It must be noted that central hospitals are less equipped compared with general and university hospitals regarding operating rooms and intensive care units. For private hospitals, public expectations are high and in obstetrics the risk is doubled (both the mother and the foetus). Also, many private hospitals do not have intensive care units. In the same time, in middle Delta region, the majority of claims were against public (governmental) hospitals followed by university then private and least was educational hospitals [4]. They referred these results to the heavy burden of such hospitals with cases besides the fact that serious medical procedures and surgical interventions are mostly done there.

Also most claims referred to Cairo Medicolegal Department from 1973 to 1979, were raised against doctors in public hospitals followed by private, educational, military hospitals and least was against doctors in their special clinics [13]. So, the majority of claims were against public/central hospitals in Cairo (1973-1979), Dakahlia and Damietta (1995-2005) and middle delta region (2000-2004). This higher percentage in governmental hospitals may be due to the large number of patients and as the medical service is free of charge it may be inadequate as Hafez AA et al. [4] suggested. Governmental hospitals are less equipped compared to university hospitals, also physicians in governmental hospitals may be to some extent less experienced compared to physicians in university hospitals.

Although, doctors are more affected by medical malpractice claims than doctors in private practice, the number of confirmed cases of medical malpractice was higher for doctors in private practice [20]. In a Japanese study, the ratio of acknowledged physician liability by court decision was higher in clinics than in hospitals and in cases of elective or non-urgent treatment but lower in cases in which the doctor’s explanation occurred before treatment or surgery [22]. So, doctors’ communication skills with patients are extremely important for the prevention of medical disputes, as well as for patient satisfaction [22].

In contrast, Phillips RL et al. [23] in the United States examined primary care malpractice and found that the total number of errors and deaths due to errors were greater for outpatient settings and that one-third of all claims was the result of misdiagnosis. Finally as Udesmann A [9] said, good medical practice and a good medical-patient relationship are still the best ways to minimize lawsuits and their repercussions. Doctors should have some knowledge of juridical mechanisms in lawsuits and ethical procedures, but should not take defense initiatives without prior consultation of an attorney.

This study concluded that there is annual significant increment in the total number of medical malpractice claims, anesthesia represented the highest percentage of claims and central hospitals were the commonest place where claims were filed in private. It is recommended that physicians are in need for training about medicolegical responsibilities, issues related to professionalism and patients rights beside especial training and orientation regarding physician-patients relationship. Our patients also need to know their right well.

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