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Original Article

Analysis of the causes of surgery-related medical disputes in Taiwan: Need for acute care surgeons to improve quality of care

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Abstract

Background: This study investigated surgery-related medical disputes and analyzed disease etiologies and the main causes of disputes in order to identify key points for the purpose of improving the quality of surgical patient care in Taiwan.
Methods: Reports on all surgery-related cases appraised by the Taiwan Witness Examiner Committee of the Department of Health between 2004 and 2008 were reviewed retrospectively by three senior physicians from the emergency department who specialize in both trauma and emergency general surgery. The causes of the various medical disputes were categorized under the following descriptions: operation- or procedure-related complication, anesthesia complication, inappropriate management or decision, delayed diagnosis or misdiagnosis, and unsatisfactory result.
Results: A total of 154 cases were reviewed, of which 39 were trauma-related and 115 were disease-related. The two leading causes of disputes in this review were found to be operation- or procedure-related complications (35.7%) and unsatisfactory results (31.8%), followed by delayed diagnoses or misdiagnoses, inappropriate management, and anesthesia complications. Among these, 74 cases (48.1%) required the care of an acute care surgeon and 40 cases (26.0%) required emergency general surgery intervention.
Conclusion: Surgery- or procedure-related complications and unsatisfactory treatment results constituted the major causes of medical disputes in Taiwan. The majority of these cases involved acute care surgery; thus, the establishment of an acute care surgery system should be considered to improve patient care. The management of hemorrhagic shock and incarcerated hernia should be reinforced in future medical training.

Keywords: acute care surgery; emergency general surgery; incarcerated hernia; medical dispute; trauma

1. Introduction

The number of complaints and claims made against healthcare providers is increasing, and these complaints lead, in turn, to a higher number of medical disputes, with surgery being one of the specialties most commonly involved in such disputes.[1,2] Medical disputes arise from medical errors or malpractice, and miscommunications between patients and hospital staff are also a major factor. Nevertheless, there is no denying that malpractice does exist and that there is always room to improve the quality of surgical care. To facilitate such improvement, a new specialty encompassing trauma, emergency general surgery, and surgical critical care has emerged under the nomenclature of acute care surgery (ACS). This restructuring of emergency surgical service has previously been shown to improve quality of care for American and British patients.[3] In Australia and New Zealand, a binational surgical audit has been shown to reduce surgical mortality

Conflict of interest: The authors declare that they have no conflicts of interest related to the subject matter or materials discussed in this article.

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rates by as much as 30%.[4] In Taiwan, however, the incorporation of ACS systems remains unpopular and no nationwide surgical audit has been implemented. As such, any discussions regarding surgical malpractice are limited to conference rooms in individual institutions.

In order to examine and identify the key points for improving the quality of surgical patient care in Taiwan, we focused in this study on the group of patients comprising those who are or have been involved in medical disputes. More specifically, we investigate disease etiologies and the scenarios in which surgery-related medical disputes might take place, in addition to further analyzing the causes and outcomes of such disputes.

2. Methods

The definitions of various terms in this study must be clarified. For instance, "medical malpractice" was defined as any act or error by a physician during treatment of a patient that deviated from the accepted norms of practice in the medical community and caused injury to the patient; "medical dispute" was defined as any case in which a patient asked (whether by means of a threat or a request for an apology or reimbursement) that the physician make up for a perceived treatment error, whether or not the given case involved actual medical malpractice; and "medical litigation" was viewed as any instance in which a patient filed a lawsuit against the physician over a medical dispute.[5]

In Taiwan, nearly all medical disputes that develop into cases of medical litigation are reviewed by the official witness examiner committee of the Department of Health. This committee provides a "medical assessment report" to help the judges or prosecutors to determine whether or not medical malpractice occurred. We extracted reports on all the surgery-related cases from this committee within 5 consecutive years (2004−2008).

These reports were reviewed retrospectively by three senior physicians from the emergency department who specialize in trauma and emergency general surgery in order to identify the background scenario, disease etiology, and possible cause of the medical dispute in each case. The causes of the various medical disputes were categorized under the following descriptions: "operation- or procedure-related complication," "anesthesia complication," "inappropriate management or decision," and "delayed diagnosis or misdiagnosis." In some cases, the cause could not clearly be ascribed to any of the above descriptions. So, in those cases, the cause of the dispute was considered to be "unsatisfactory result", that is, the dispute was not related to malpractice. In our institution, review board approval was not required for this type of retrospective research.

3. Results

A total of 154 cases were reviewed, of which 39 were trauma-related and 115 were disease-related (i.e., nontrauma cases; Fig. 1). Out of all 154 cases, the patient died in 97 cases (63.0%), while neurological sequalae occurred in 14 cases (9.1%); such poor outcomes were considered to be the legal grounds upon which the patients sued (Table 1). The two leading causes of disputes in this review were found to be operation- or procedure-related complications (35.7%) and unsatisfactory results (31.8%), followed by delayed diagnoses or misdiagnoses, inappropriate management, and anesthesia complications (Table 2).

Of the 115 nontrauma cases, 61 (52.2%) involved the gastrointestinal and hepatopancreaticobiliary system, making diseases of that type the most common disease etiology (Table 3). Of all the nontrauma patients, 35 presented with the acute abdomen clinical scenario and underwent emergency surgical intervention. The most common causes of medical disputes in nontrauma cases were operation- or procedure-related complications (47.0%), followed by unsatisfactory results and, delayed diagnoses or misdiagnoses (Table 2). The mortality rate was 54.8% in the nontrauma cases, while 7.8% experienced irreversible neurological complications (Table 1). In the operation- or procedure-related complications group, hemorrhages were the most common complication (25.9%), followed by sepsis/infections (Table 4). In the delayed diagnosis or misdiagnosis group, the most common disease encountered was ischemic bowel disease, which accounted for four of the 24 cases. Only four patients were categorized into the inappropriate management group; notably, all four patients received a diagnosis of incarcerated hernia, and three (75%) of those patients died.

In the 39 trauma-related cases, traffic accidents constituted the most common etiology (61.5%), followed by falls from a great height (including suicidal and accidental incidents) and assaults (Table 3). Unsatisfactory results were the most common cause of medical disputes in trauma cases (46.2%), followed by inappropriate management, and delayed diagnoses or misdiagnoses (Table 2). Mortality was the result in 87.2% of the trauma-related cases, while 12.8% of those patients suffered from irreversible neurological complications. In addition, men comprised the vast majority of the trauma-related patients (Table 1). Further analysis of the unsatisfactory result group showed that 13 out of those 18 patients died due to natural courses of their severe head injuries. It is also worth noting that eight of the 10 cases in the inappropriate management group received suboptimal hemorrhagic shock control and that all eight of those patients died. Meanwhile, six of the nine cases in the delayed diagnosis or misdiagnosis group suffered a bowel perforation or ischemia that was missed during an initial survey. All six of those patients later received surgical intervention but eventually died of peritonitis and sepsis. In contrast to the nontrauma series, only one patient from the trauma series who sustained an esophageal perforation after C-spine instrumentation was categorized into the operation- or procedure-related complications group.

4. Discussion

The most high-risk specialties in Taiwan are obstetrics and gynecology, anesthesiology, and surgery.[6−8] With people gradually starting to claim that their medical rights are similar

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