Citation

Sharar SR, Tsai YK, Posner KL, Domino KB, Cheney FW: Do Liability and Patient Injuries for Anesthetic Care of Acute Trauma Differ from Those of Non-Trauma Care?: A Closed Claims Analysis. *Anesthesiology,* 99: A1362, 2003.

Abstract

Introduction

Trauma patients are hypothetically predisposed to increased anesthetic risks, including hemorrhage-induced hypotension, aspiration of gastric contents, and difficult or emergent endotracheal intubation. As a result, anesthesia for trauma care may carry a higher malpractice liability risk, when compared to non-trauma care. We conducted an analysis of cases from the American Society of Anesthesiologists Closed Claims Project to evaluate the potential contribution of trauma to professional liability for anesthesia care.

Methods

The ASA Closed Claims Project database is a collection of standardized case summaries of closed malpractice claims from 35 U.S. insurance organizations insuring approximately 14,500 anesthesiologists. All claims for acute trauma-related anesthetic care (defined as care provided within 3 days of injury for blunt or penetrating trauma, burns, drowning, or environmental injury) were reviewed to identify patterns of causation, injury, standard-of-care, and liability, and then compared to non-trauma claims. Cases occurring prior to 1987 were excluded, as the ASA Standards for Basic Monitoring were adopted in October 1986. Proportion data were analyzed by Z test, and payment data were analyzed by Kolmogorov-Smirnov test.

Results

Trauma patients accounted for 124 (4.3%) of the 2896 claims after 1986 in the database. The majority of trauma claims involved men (65% vs 40% for non-trauma, $p<0.05$), ASA physical status III-V (47% vs 35% for non-trauma, $p<0.05$), and emergencies (76% vs 16% for non-trauma, $p<0.05$). As shown in the table, there was a higher incidence of death and a similar incidence of brain damage in the trauma group, despite similar appropriateness of standard-of-care in both groups. Payment was made in roughly half of both trauma and non-trauma claims, although the median payment for trauma claims was twice that of non-trauma claims. Perioperative complications of aspiration and difficult intubation occurred with similar frequency in both groups. Postoperative awareness of intraoperative events occurred more frequently in the non-trauma group (no cases of awareness were reported in the trauma group).

Table

Outcomes Following Trauma vs Non-Trauma Claims

Outcome	Trauma Group	Non-Trauma Group	p value
Death	43%	23%	<0.05
Brain Damage	13%	10%	NS
Standard-of-Care Met	54%	57%	NS
Payment Made	50%	52%	NS
Median Payment	$200,000	$100,000	<0.05
Aspiration	3%	4%	NS
Awareness	0%	2%	<0.05
Difficult Intubation	10%	7%	NS

Conclusions

Compared to non-trauma claims, trauma claims are more likely in male, critically ill, and emergent patients. Claims for death were more common in the trauma group. Trauma claim payments were higher than those of non-trauma claims, reflecting the greater severity of injury. Complications of aspiration, difficult intubation, and awareness were not more common in trauma claims. No cases of awareness were reported in the trauma group, despite the perceived increased risk of this complication in critically ill patients whose hemodynamic status may not allow sufficient administration of anesthetic agents to prevent recall of intraoperative events.