Bird M, Caplan RA, Lee LA, Stephens LS, Domino KB: Liability Associated with Acute Pain Management. *Anesthesiology* 106: A1743, 2007.

Abstract

Introduction

Acute pain management is a growing field for anesthesiologists. Nerve injury associated with regional blocks has been a significant source of liability for anesthesiologists.(1) In addition, postoperative opioid-induced respiratory depression was recently highlighted as an important safety problem by the Anesthesia Patient Safety Foundation.(2) We therefore reviewed the ASA Closed Claims database to evaluate liability for anesthesiologists related to postoperative pain management.

Methods

All claims related to acute pain management (n=150) in the ASA Closed Claims database (n=7331) were included in this study. The predominant mode of pain control was divided into four categories: neuraxial block (n=104), peripheral nerve block (n=22), patient-controlled analgesia (PCA) (n=17), and other (oral and intramuscular opioids, n=7). Claims were categorized as probable respiratory depression (patient received naloxone and showed signs of reversal or PaCO2 >60), possible respiratory depression (respiratory rate <8, oxygen saturation <90, qualitative observation of respiratory depression, or evidence of excessive opioid administration), or none of the above.

Results

Nearly all claims were from the 1990s, with 20% involving patients older than 70 years, 48% obese patients, and 38% ASA 3-5. A payment was made in 55% of the claims, with a median payment of $211,650 (range $627- $14,880,000). Two-thirds of claims associated with neuraxial and peripheral nerve blocks involved nerve damage, abscess, or hematoma (Table). One-third of acute pain claims involved death or permanent brain damage (Table). Evidence for probable or possible respiratory depression was present in a quarter of claims (Table). In 13 additional claims, the patient was found in cardiac or respiratory arrest without notation of preceeding signs of respiratory depression. On-site reviewers judged that better use of monitoring devices may have prevented the complication in 26% of all acute pain claims (Table).

Table

Outcomes and Evaluations Of Care By Pain Management Mode [n (%)]

	Neuraxial	**Nerve Block**	**PCA**	**Other**	**Total***	**P-value****
	104 (69)	**22 (15)**	**17 (11)**	**7 (5)**	**N=150**	
OUTCOME						
Nerve damage	49 (47)	14 (64)	0 (0)	0 (0)	63 (42)	0.00
Abscess or hematoma	28 (27)	1 (5)	0 (0)	0 (0)	29 (19)	0.01
Death or brain damage	30 (29)	4 (18)	11 (65)	5 (71)	50 (33)	0.01
RESPIRATORY DEPRESSION***						
Probable	7 (7)	0 (0)	5 (29)	1 (14)	13 (9)	0.00
Possible	13 (13)	0 (0)	6 (35)	4 (57)	23 (15)	
PREVENTION BY MONITORING (n=146)	**21 (21)**	**2 (9)**	**12 (75)**	**3 (43)**	**38 (26)**	**0.00**

*Percentages are reported for all 150 cases unless noted differently; **chi square statistic; ***13 additional cases were found in respiratory or cardiac arrest, but no preceeding signs of respiratory depression noted. Kappa=.65

Discussion

Claims related to acute pain management are a new source of liability for anesthesiologists. While claims for nerve damage, hematomas, and abscesses were more common with regional blocks used for postoperative pain control, claims for death or brain damage formed a third of acute pain claims. Respiratory depression was an important damaging event, and injuries may have been prevented by better use of respiratory monitoring devices.

References

1. Anesthesiology 2004;101:143.
2. APSF Newsletter 2007;21(4).