

Citation

Kent CD: Liability Associated With Awareness During Anesthesia. *ASA Newsletter* 70(6): 8-10, 2006.

Full Text

“‘Awake’ will do to surgery what ‘Jaws’ did to swimming in the ocean.”

— Movie producer Joana Vicente, commenting on her movie “Awake,” a “psychological thriller” scheduled for a 2006 release that tells the story of a man who is awake but paralyzed during surgery.¹

Unintended awareness during general anesthesia (“recall,” “awareness”) occurs with a frequency of less than 1 in 500 general anesthetics.² The public profile of this complication of general anesthesia in recent years, however, has been second to none. Even without any increased attention that the upcoming movie may generate, public awareness and concern have been raised by the campaigns of patients who have suffered from recall, news media coverage on the topic, portrayals of recall in medical dramas on television and the increasingly public profile of brain function monitors for the assessment of the depth of anesthesia in clinical practice. All of this has created an environment where anxious inquiries by patients regarding recall under general anesthesia are now a routine occurrence during preanesthetic assessments.

The ASA Closed Claims Project database³ was reviewed to evaluate factors associated with liability for awareness during anesthesia in the 1990s. The database contains standardized information on 6,894 closed anesthesia malpractice claims from 35 professional liability insurance companies throughout the United States. Claims for dental damage are excluded from the database. Claims for awareness were classified into “awake paralysis,” i.e., the accidental paralysis of an awake patient, and “recall during general anesthesia,” i.e., explicit recall of events while receiving general anesthesia. The latter category is what is typically thought of as “awareness” during anesthesia and ranges from mild to more pronounced recall.

Overview of Claims for Awareness

Awareness claims formed 2 percent [Figure 1] of all claims from 1990 to 2001, including 56 claims for recall under general anesthesia and nine claims for awake paralysis. The rate of payment for awareness claims was about the same as for claims for other complications in the database (52 percent), although payments were smaller than for other claims in the database. Payments for awareness, adjusted to 1999 dollars using the consumer price index, remained constant compared to earlier decades [Table 1]. The median payments for recall remain less than the \$50,000 threshold cited by Huycke and Huycke⁴ in 1994 as the compensation level above which attorneys become more interested in pursuing claims. There was a broad range of payments, however, with one as high as \$840,000 for a patient undergoing coronary artery bypass grafting who suffered from post-traumatic stress disorder after intraoperative recall of the surgical procedure. The size of this payment was influenced by substandard care compounded by poor record keeping and lack of postoperative follow-up.

Figure 1: Most Common Complications: 1990-2001 (n=3,183)

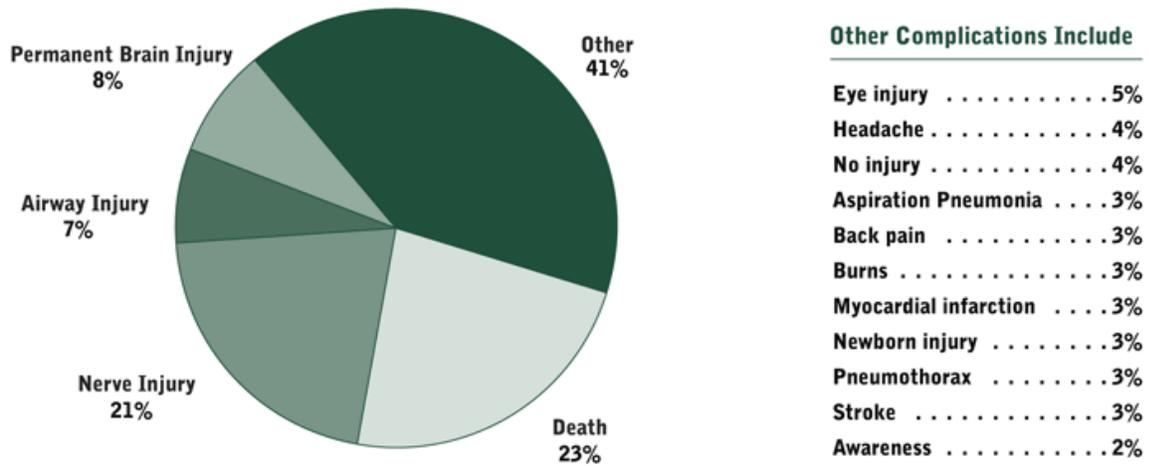


Table 1: Inflation-Adjusted Payments for Awareness (Awake Paralysis Plus Recall Under General Anesthesia) Claims Over 3 Decades

	1970s n=669	1980s n=2,959	1990s n=3,183
Claims for awareness	7 (1%)	57 (2%)	65 (2%)
Payment made*	4 (67%)	32 (62%)	31 (52%)
Payment in 1999 dollars			
Median	\$32,060	\$21,455	\$33,599
Minimum	\$5,217	\$2,325	\$1,220
Maximum	\$46,080	\$846,000	\$840,000

*Claims with missing data excluded

Awake Paralysis, 1990-2001

Nine claims for awake paralysis were analyzed separately because the factors associated with these claims are substantially different from the more heterogeneous claims for recall. Awake paralysis claims were related to syringe identification errors, out-of-sequence administration of induction agents and the use of succinylcholine infusions. Most (78 percent) represented substandard care, and payments were made in most (56 percent) cases. The median payment amount, however, was relatively small (\$20,000).

Recall During General Anesthesia Claims, 1990-2001

Claims for recall (n = 56) accounted for 2 percent of the 1,977 general anesthesia claims in 1990-2001. Payment was made in 52 percent of recall claims. The median payment of \$34,049 was substantially lower than payment for other complications associated with general anesthesia (\$152,500, p<0.05). Mechanical problems with vaporizers or ventilators contributed to light anesthesia in 9 percent of recall claims. The management of a difficult airway was associated with

2 percent of claims. A large number of claims were not associated with any single obvious factor, but there were indications that lower doses of anesthetic agents may be associated with recall.

Awareness is a more substantial liability burden for cardiac anesthesiologists as cardiac procedures accounted for 23 percent (13 of 56) of recall claims but only 6 percent (124 of 1,921) of general anesthesia claims ($p < 0.05$). This result correlates with data from other sources⁵ suggesting that this group of patients is at a high risk for awareness because of their potential for hemodynamic instability and limited tolerance of anesthetic agents.

Women accounted for 73 percent of recall claims and only 52 percent of other claims ($p < 0.05$). The higher-risk situation of general anesthesia for cesarean section obviously affects only female patients. In addition the increase in claims from women may represent a gender-related increase in propensity for recall during general anesthesia as women have higher requirements for both propofol⁶ and opioids.⁷

Discussion

Our present review indicates that there has been no substantial change in the liability associated with recall under general anesthesia in the 1990s compared to previous decades. It is important to note, though, that it takes, on average, three to five years after the complication for the claim to be resolved and included in the Closed Claims Project database. Hence recent changes in liability for awareness are not represented in this review of claims.

In 2004 the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) issued a sentinel event alert on the prevention and management of awareness.⁸ Well before the sentinel event alert was released, ASA had begun organizing and planning the work of its Task Force on Brain Function Monitoring and Intraoperative Awareness to review the problem of awareness, and this task force created the "Practice Advisory for Intraoperative Awareness and Brain Function Monitoring."⁹ Neither the JCAHO alert nor the ASA practice advisory alluded to any significant change in the standard of care for prevention of awareness.

It remains unknown whether the public perception of what can be done for the prevention of awareness has changed. Brain function monitors for the assessment of the depth of anesthesia were in limited use and under clinical study in the 1990s and early 2000s. This development, having been brought to the public's attention by media coverage, may have generated the perception among patients, lawyers and potential jurors that the standard of care for the prevention of intraoperative awareness has changed. If so, the frequency of claims by patients, the willingness of lawyers to take on these claims and the determination of payment amounts for claims could represent a potential for increased liability burden.

References

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