A 70-year-old woman with chronic thoracic back pain had an epidural local/steroid injection in the T-spine region. The block was uneventful, but 10 minutes later she complained of increased back pain and shortness of breath. The initial diagnosis was “nerve root irritation.” She was discharged but later went to the emergency room where she was seen by the anesthesiologist. A CT scan showed no change from the pre-block CT scan and she was admitted to the neurological service. An MRI later found a hematoma in the T-spine area. After three subsequent surgeries for evacuation of the hematoma and progressive paraplegia, she died within a week of her last surgery. A suit was filed against the anesthesiologist. Upon further review of her medical records, it was noted that she was instructed to stop taking her outpatient anticoagulant four days prior to the epidural injection. She claimed to have complied, but the records indicated that she had continued to take the anticoagulant up until the time of the injection. Was the anesthesiologist liable or negligent? Are complications such as these becoming more common in chronic pain management?

Complications due to chronic pain management interventions are a significant source of liability for anesthesiologists. Previous investigation of trends in liability related to chronic pain management by anesthesiologists showed that claims and payments to resolve those claims were increasing over time.¹ This update from the ASA Closed Claims Project provides data on more recent trends in chronic pain management anesthesia liability.

**Trends**

Chronic pain management continues to increase as a source of liability for anesthesiologists. Data from the ASA Closed Claims Project database (n=7,328) were used to compare chronic pain claims from 1985-94 to chronic pain claims from 1995-2004. Just as previous trends have shown, chronic pain claims continued to increase from 7 percent (222 of 3,152 claims) in 1985-94 to 12 percent (224 of 1,839 claims) in 1995-2004 (p<0.01).

**Pain Interventions**

Chronic pain management interventions were categorized as blocks and injections, device implant/maintenance/removal, medication management or other. Blocks and injections included neuraxial or peripheral nerve blocks, steroid injections, trigger-point injections, and facet blocks or injections. Neuraxial blocks and injections were the most common chronic pain intervention in claims, accounting for nearly half (47 percent) of the most recent chronic pain claims [Figure 1]. Other pain management interventions included non-neuraxial blocks and injections (26 percent), device implantation/management/removal (10 percent) and medication management (8 percent).
The proportion of chronic pain claims associated with any type of block or injection decreased in 1995-2004 compared to the earlier time period. Medication management increased to 8 percent in 1995-2004 compared to 2 percent in 1985-94 [Figure 2]. Other types of pain management interventions (nonblock and injection) increased from 14 percent of earlier claims to 26 percent of claims in 1995-2004 [p<0.01, Figure 2]. Cervical blocks and injections increased from 5 percent of chronic pain claims in 1985-94 to 14 percent in 1995-2004 [p<0.01, Figure 2].
Patterns of injury associated with chronic pain management malpractice claims have changed over time. The proportion of claims associated with nerve injury significantly increased between time periods and now accounts for the most common complication (38 percent) in chronic pain management claims [Figure 3]. These nerve injuries (n=86) included both peripheral nerve injury (n=43) and spinal cord injury (n=48) (five claims had both peripheral nerve and spinal cord injury). Of the spinal cord injury claims, 22 resulted in paraplegia or quadriplegia. In 20 of these 22 cases, the spinal cord injury was associated with abscess or hematoma similar to the opening vignette.
Other common injuries cited in 1995-2004 chronic pain claims included headache and/or back pain, pneumothorax, and death or permanent brain damage [Figure 3]. Claims for pneumothorax were less common in the recent time period. In 14 percent of the recent claims, there was no apparent injury or the complaint was restricted to emotional sequelae.

**Figure 3:**
Change in complications in chronic pain claims over time. *p<0.01 between time periods.

Monetary Compensation

Liability associated with chronic pain management has changed over time. The more recent chronic pain claims were less likely to result in payment than earlier claims. If a payment was made, however, the median payment amount (after adjustment for
inflation) was higher. Fewer than half (40 percent) of chronic pain management claims in 1995-2004 resulted in payment compared to 54 percent in the earlier time period (p<0.01). Median payment in 1995-2004 (expressed in 1999 dollar amounts) was higher ($153K versus $52K in 1985-94, p<0.01).

Discussion

Complications associated with chronic pain management continue to cause significant injuries to patients and financial liability to practicing anesthesiologists. Although there are limitations inherent to closed claims methods,\textsuperscript{2,3} this updated analysis demonstrates that the proportion of all closed claims associated with chronic pain management increased from 1985-94 compared to 1995-2004. The lack of denominator data in the Closed Claims Project database makes it difficult to determine if the increase in chronic pain claims reflects a change in liability or an increase in the number of procedures performed by anesthesiologists.

Although there was a significant decline in the percent of claims with payment made over time, the median payments were significantly increased and associated with an increased severity of injury. Claims associated with peripheral and spinal cord injuries increased over time. Modes of pain management associated with claims changed with an increase in claims with medication management and a decrease in blocks and injections.

These findings suggest that chronic pain management forms an area of increased liability for anesthesiologists.

References

2. Cheney FW. The American Society of Anesthesiologists Closed Claims Project: What have we learned, how has it affected practice, and how will it affect practice in the future? Anesthesiology. 1999; 91:552-556.