Citation

Domino KB, Fitzgibbon DR: Clinical lessons in chronic pain management from the Closed Claims Project. ASA Newsletter 68(2): 25-7, 2004.

Full Text

We recently reviewed claims related to chronic pain management in the ASA Closed Claims database.[1] Of the 284 claims related to chronic pain management, the majority (97 percent) were for invasive procedures, especially injections and blocks. Epidural steroid injections (plus or minus local anesthetic and/or opioids) accounted for most of the injection claims and for 40 percent of chronic pain management claims. Nerve injury and pneumothorax were the most common adverse outcomes in invasive pain management claims. Half of the nerve injury claims involved spinal cord injuries (primarily paraplegia and quadriplegia), which were associated with epidural steroid injections and other procedures. Pneumothorax was the most common complication following trigger point and other nonepidural blocks and injections. Significant adverse outcomes such as death and brain damage resulted from epidural steroid injections and maintenance of infusion devices. Epidural steroid injections were associated with these serious injuries only if local anesthetics and/or opioids were used with steroids.

The implications for clinical practice from this review are multiple [Table 1]. Epidural steroid injections are not free of risk. Injections in the vicinity of the neuraxis may on rare occasions result in unintentional serious nerve injury such as paraplegia and quadriplegia. Serious infectious complications (epidural abscess, meningitis and osteomyelitis) also may follow epidural steroid injections. Patient safety may be improved by excluding opioids and typical epidural doses (volumes in excess of intrathecal test doses) of local anesthetics from epidural steroid injections. Our data also suggests that it is important to establish parameters for monitoring for complications (e.g., pneumothorax, nerve injury) after discharge following invasive procedures. Finally, anesthesiologists involved in home care of patients with implanted devices such as morphine pumps, epidural infusions and patient-controlled analgesia should be aware of the risks of programming errors and drug overdose.

Table 1: Clinical Lessons for Chronic Pain Management

Epidural Steroid Injection Complications

- Injections in the vicinity of the neuraxis may result in unintentional nerve injury such as paraplegia/quadriplegia.
- Use of opioids and large doses of local anesthetics with epidural steroid injections should be avoided.
- Serious infectious complications (epidural abscess, meningitis and osteomyelitis) may follow epidural steroid injections.

Postprocedure Monitoring

- Parameters should be established for monitoring for complications (e.g., pneumothorax, nerve injury) after discharge following invasive procedures.
- Maintenance of home-infusion devices are subject to programming errors and drug overdose.

REFERENCES

1. Fitzgibbon DR, et al. Chronic pain management: ASA closed claims. Anesthesiology. 2004; 100:98-105.

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