

lol would likely be harmful if used for the treatment of bupivacaine overdose.

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Long-term interpleural analgesia using a subcutaneous implantable infusion system

To the Editor:

Interpleural analgesia has been used for postoperative analgesia as well as treatment for malignant and post-traumatic pain.¹⁻³ We report the successful treatment of chronic unilateral non-malignant chest pain utilizing a fully implantable delivery system for interpleural analgesia.

A 51-yr-old male was referred with a six-month history of constant searing unilateral chest wall pain following tube thoracostomy and tetracycline pleurodesis. Successful placement of a percutaneous interpleural catheter was performed and the patient underwent a series of interpleural injections with 20 ml bupivacaine 0.5% with epinephrine 1:200,000. A dome subcutaneous port with Groshong catheter was implanted subcutaneously anterior to the anterior axillary line at T₈-T₉ to enable continued outpatient injections. The catheter was tunneled posteriorly; the tip was located posteromedially at T₇-T₈ (Figure). Placement of this catheter was complicated by the development of a 15-20% pneumothorax which required tube thoracostomy for three days. Three months after the last injection the catheter and port were removed uneventfully.

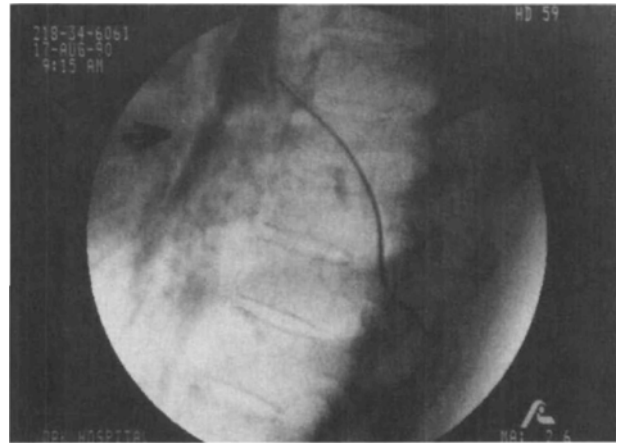


FIGURE Intraoperative radiograph showing interpleural catheter. Arrow points to radioopaque column of dye in the right paravertebral gutter.

Although the exact mechanisms of interpleural analgesia have yet to be fully elucidated, one can speculate that the local anaesthetic diffused across the pleura to block the intercostal somatic nerves. One might also expect that neurons in the thoracic sympathetic chain might be affected by the local deposition of anaesthetic. We suggest that the progressive improvement in the pain relief our patient exhibited lends credibility that some, if not all, of his chest wall pain was due to a sympathetic mediated cause, i.e., causalgia secondary to the chemical pleurodesis. We chose to use an implantable delivery system to reduce the likelihood of bacterial contamination and infection of the pleura. The system employed is more commonly used for the chronic ambulatory administration of antibiotics or chemotherapeutic agents.

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