

Intrathecal Catheter Placement for Patient with Extensive Spinal Hardware Undergoing Hip Disarticulation: A Case Report

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Introduction

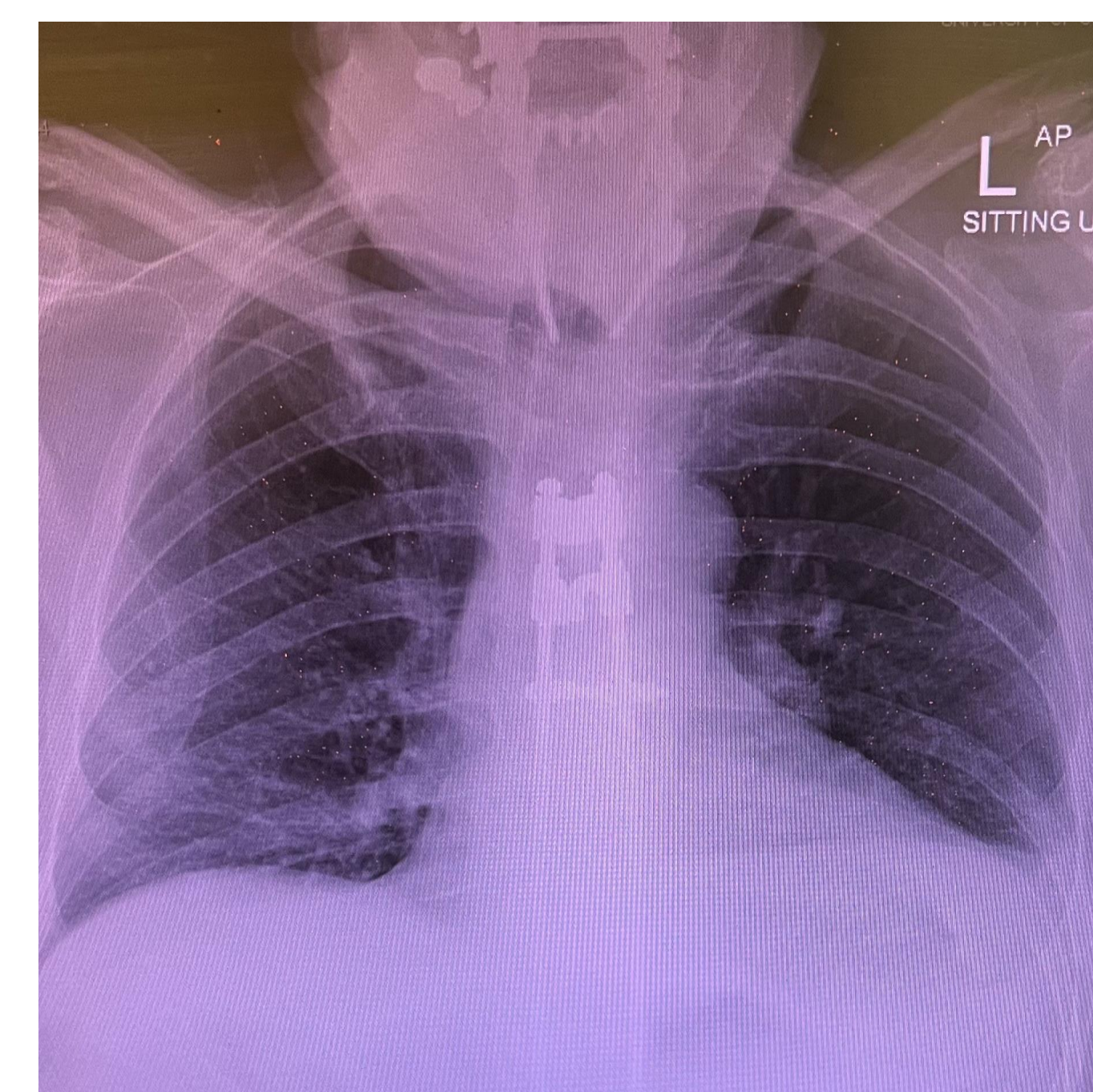
- An intrathecal catheter is inserted in the intrathecal space where cerebrospinal fluid surrounds the spinal cord
- Have been used for many years, primarily to treat severe and chronic pain that has been resistant to conventional treatment modalities
- Also common in the obstetrics world with intentional placement of the catheter in the intrathecal space after an accidental dural puncture
- We report a patient with extensive spinal hardware who received an intrathecal catheter for postoperative pain control management

Methods

- Literature review was performed investigating the use of intrathecal catheters for hip disarticulation operations
- Patient gave verbal consent to write the case report and their course is reported here
- No identifiable patient information, exempt from the IRB review as per Colorado Multiple Institutional Review Board (COMIRB) policy

Case Report

- 79-year-old male PMH COPD on supplemental O₂, CAD, ankylosing spondylitis (status post multiple operations and hardware extending from the cervical to lumbar spine)
- 79-year-old right thigh rhabdomyosarcoma complicated by pathologic right femur fracture presented for a right hip disarticulation
- APS was consulted for assistance with postoperative pain management
- Given patient's extensive spinal hardware, decision was made to place an intrathecal catheter
- Patient was placed under general anesthesia for positioning purposes
- Placement required multiple attempts, eventually successful at L3-4 with no complications
- Infusion: bupivacaine 0.08% and hydromorphone 1 mcg/mL at 2 mL/hr
- Pain well controlled, catheter removed POD 3



Discussion

- Several research studies have found superiority of epidural anesthesia over IV PCA in treating postoperative pain in patients with orthopedic tumors
- Our patient's epidural space was likely compromised during prior surgeries- epidural catheter may have been ineffective
- We were unable to find specific case reports about intrathecal catheter use in hip disarticulation surgery.
- Goal to avoid IV PCA given patient's age and pulmonary comorbidities, therefore decision made to move forward with an intrathecal catheter
- Several factors to consider prior to neuraxial placement for hip disarticulation:
 - extent of blood loss that can occur during/after these procedures
 - patient's underlying pathology can preclude adequate positioning
- Our case shows that intrathecal catheter placement can be safe and effective in this patient population

References

- D. Meenan, J.A. Lagares-Garcia Managing intractable pain with an intrathecal catheter and injection port: technique and guidelines
- Weinbroum AA. Superiority of postoperative epidural over intravenous patient-controlled analgesia in orthopedic oncologic patients. Surgery 2005;138:869-76
- Anesthesia for patients undergoing orthopedic oncologic surgeries Michael R. Anderson MD (Fellow)^a, Christina L. Jeng MD (Assistant Professor)^{a,b}, James C. Wittig MD (Associate Professor)^b, Meg A. Rosenblatt MD (Professor)^{a,b,*}