

SOCIETY FOR PEDIATRIC PAIN MEDICINE VISUAL PEARL SERIES



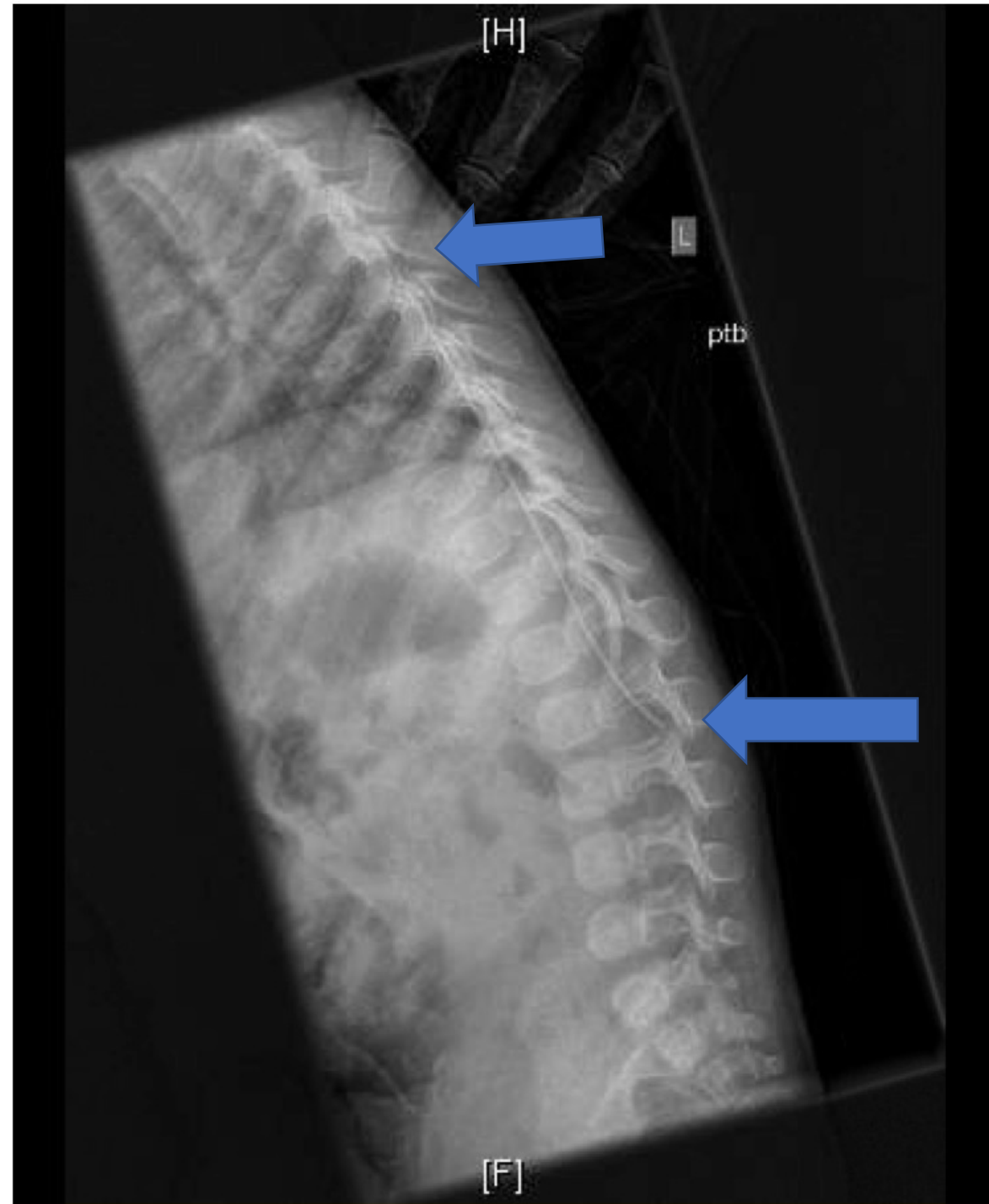
RETAINED EPIDURAL CATHETER

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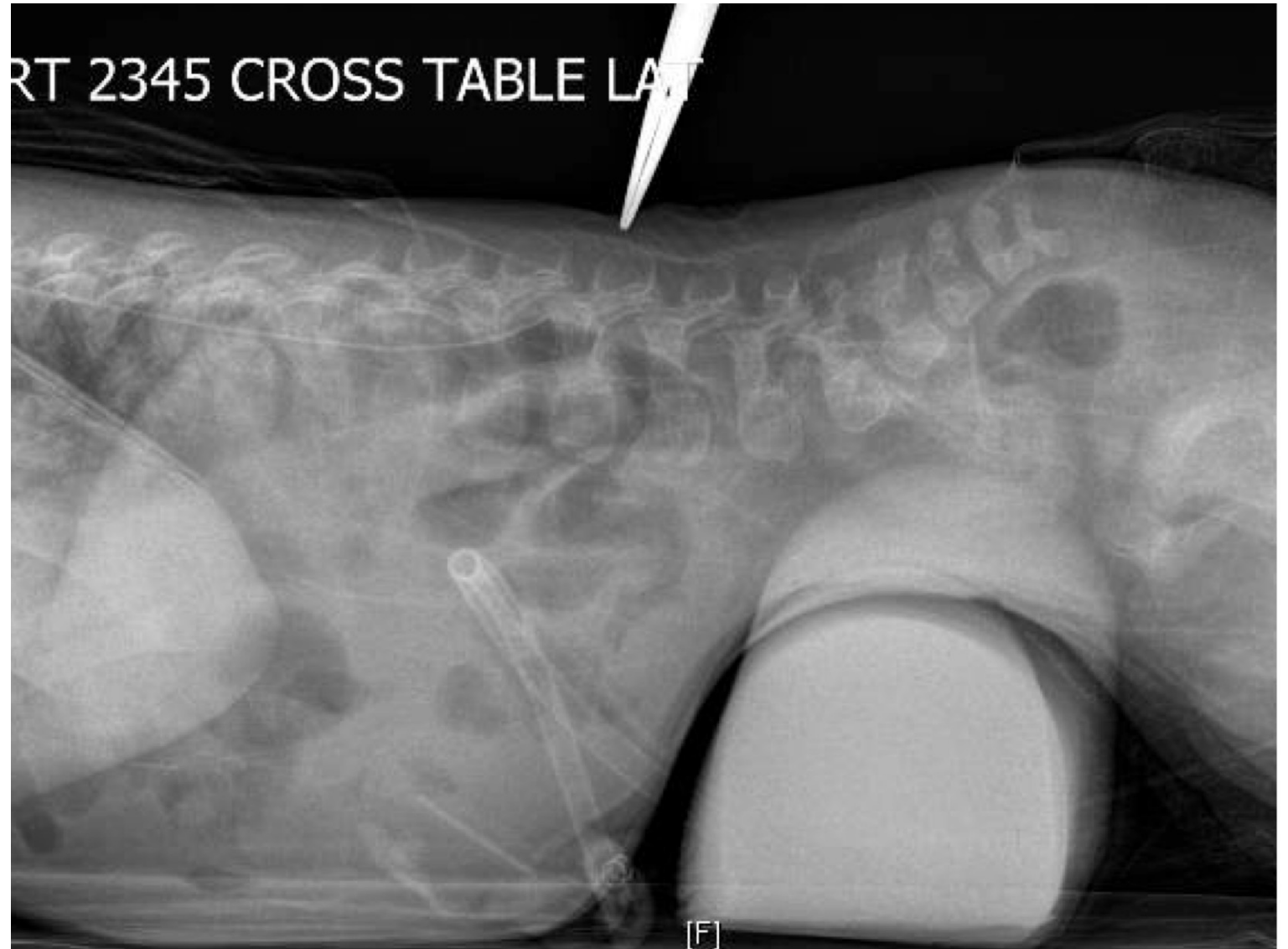
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Retained Epidural Catheter seen on Xray after accidental dislodgement of a lumbar epidural catheter threaded up to T8 level in this 8 month old baby.

This was an intraoperatively placed tunneled 21 g radio-opaque stylet lumbar epidural catheter threaded to the T8 level. Catheter dislodged by possible patient movement in the crib.



Another view while on the OR table, where the epidural catheter was located in the gutter of the L2 epidural space.



Common Causes for Retained Epidural Catheter

Entrapment around spinal ligaments or tissues

Kinking or knotting of the catheter within the epidural space or subcutaneous tissue

Defective devices

Improper handling technique by operator during placement, tunneling or removal

Should Retained Epidural Catheter's be removed?

There is a theoretical risk of thermal injury if catheter is wire reinforced/styletted and movement of the catheter is possible from exposure to a strong magnetic field.

Pediatric literature also cites reasons for surgical removal of retained catheter fragments. These include potential future neurologic damage secondary to infection, fibrosis, migration or direct nerve irritation that may occur with the child's growth.

What happened in this Case?

Neurosurgery consulted and recommended urgent surgery to retrieve the retained epidural catheter due to concern for infection.

- L2 laminectomy, including inspection within the dural sac, until the retained catheter was located and retrieved from the right lateral gutter of the epidural space.
- Intraoperative x-rays confirmed that the catheter had migrated rostrally since initial insertion.
- Risk management notified of the complication resulting from neuraxial anesthesia that required an additional surgical intervention.
- The patient recovered and was discharged home without neurologic deficits.



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