

Caudal Epidural Steroid Injection for Refractory Leg Pain from a Psoas Mass

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BACKGROUND:

- Vascular and neural compression can produce severe pain often resistant to multimodal medical therapy
- When etiology is unclear and pain is refractory to medications, interventional options may provide relief while diagnostic workup continues
- Caudal epidural steroid injections offer targeted analgesia while minimizing systemic adverse effects of traditional medications

METHODS:

- 61-year-old female with history of recurrent grade II endometrial carcinoma status post-chemotherapy and pelvic tumor debulking
- Presented with new, severe left leg pain, swelling, and weakness unresponsive to multimodal pain regimen
- Procedure: caudal epidural steroid injection with catheter threaded to L5 with fluoroscopy
- Injectate: 2mL 1% Lidocaine + 2mL normal saline + 80mg methylprednisolone
- Followed by acute pain service for daily checks and progress notes

RESULTS TABLE:

Time Point	Pain Score (0-10)	Clinical Notes
Pre-injection	10	Unable to ambulate; severe L leg pain
Day 1 post-injection	7	Tolerable with pain regimen; no deficits
Day 5 post-injection	5	40-50% pain relief from baseline
Day 7 post-injection	5	Sustained relief; no complications

Targeted caudal epidural steroid injection provided rapid pain relief in a patient with a large psoas mass causing vascular and neural compression



Image 1: CT Venogram Abdomen Pelvis demonstrating an approximate 11cm x 9cm left iliopsoas mass



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ADDITIONAL FINDINGS:

- Initial Laboratory Studies:
 - WBC 84,800 (leukocytosis)
 - Hgb 7.3 (anemia)
- Imaging Studies:
 - CT Venogram Abd Pelvis: 11.3 x 8.9cm left iliopsoas mass compressing external iliac vein (see middle)
 - MRI: Partial compression of left lumbosacral plexus



RESULTS:

- Pain decreased from 10/10 pre-procedure -> 7/10 on day 1 -> ~5/10 by day 5
- Sustained 40-50% average reduction in pain after 5 days post-injection
- No new neurological deficits or complications
- Improved tolerance for positioning and transport -> enabled iliac vein stent placement and IR-guided biopsy of mass
- Mass identified as recurrent endometrial carcinoma; palliative radiation initiated
- Significant edema and weakness persisted in left leg despite pain relief.

DISCUSSION:

- Caudal epidural steroid injections are typically utilized for radicular pain caused by disc herniation or spinal stenosis
- This case demonstrates a novel application of CESI for pain from a psoas mass causing both lumbosacral plexopathy and vascular compression
- Targeted epidural therapy provided effective palliation and served as a bridge to definitive diagnosis and subsequent therapeutic interventions
- Multidisciplinary collaboration is essential in treating atypical pain sources (i.e. oncology, pain medicine, radiology)

