CT-guided Cementoplasty of Iliac Crest Lytic Lesion Contributing to Chronic Back Pain

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"Making Waves"
25th Annual Pain Medicine Meeting
November 5-7, 2026 | Tampa, Florida

Key Takeaways

- CT-guided cementoplasty of a non-neoplastic iliac crest lytic lesion resulted in sustained pain resolution and discontinuation of opioids.
- Peripheral lytic lesions may be an underrecognized pain generator in chronic lower back pain.
- Cementoplasty should be considered in selected patients with refractory non-neoplastic lytic lesions.

Introduction

- Iliac crest lytic bone lesions are an overlooked etiology of chronic lower back pain.
- Cementoplasty, the percutaneous injection of polymethylmethacrylate (PMMA) bone cement, is an established technique for stabilizing painful lytic lesions.[1,2]
- Most evidence supports its use in metastatic vertebral and acetabular pathology.
- Application to non-neoplastic iliac crest lesions remains limited, presenting a promising target for interventional pain management.[3,4]

Bibliography

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CT Imaging



Figure 1: Two CT images, approximately 2.5 years apart.
A: 2024 CT scan showing homogeneous intraosseous cyst in right iliac crest (white arrow).
B: 2026 CT scan showing the same cystic lesion but with the development of likely bone fragments in the cyst (blue arrow).

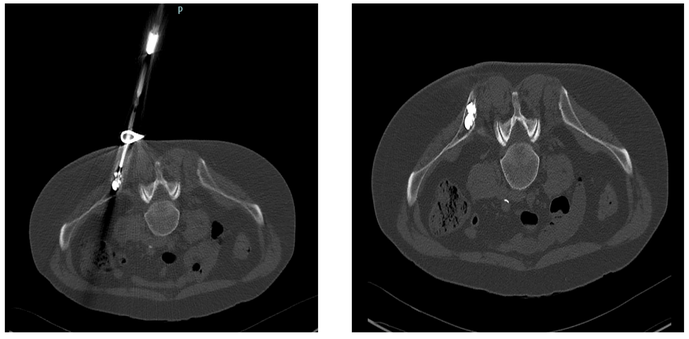


Figure 2: Intraoperative images of CT guided cementoplasty of R iliac crest lesion.

Case Presentation

Patient Presentation

- 60-year-old male presented with chronic lower back pain and multiple failed prior interventions, including right SI joint fusion, and chronic opioid use.
- Intractable acute-on-chronic lower back pain exacerbated by a fall, requiring inpatient admission.

Evaluation

- Pain management was consulted. CT imaging identified a posterior iliac crest lytic lesion as a possible pain generator.
- Biopsy was negative for neoplasm.

Procedure

- Lesion was accessed under CT fluoroscopic guidance using an osseous introducer.
- 2 mL of PMMA bone cement was injected incrementally in 0.25 mL aliquots.
- Serial CT imaging was obtained throughout to monitor cement distribution and assess for extravasation.
- Procedure was well tolerated under MAC without complications.

Outcomes

- Patient reported complete pain resolution in the recovery area.
- Follow-up at two weeks: 100% pain resolution and full discontinuation of opioids.