

Bilateral Insufficiency Fractures in an Oncology Patient Treatment with the CurvaFix® IM System

Samir Mehta, MD | University of Pennsylvania

CASE PRESENTATION

A 70-year-old female recently diagnosed with metastatic pancreatic cancer presented with acute new onset of lower back pain. The patient was taking chemotherapy, participating in a drug therapy trial, and had received radiation therapy. There was no history of acute trauma to the pelvic or acetabular region. Magnetic resonance imaging revealed bilateral fragility fractures, with the left more prevalent than the right. There was no concern from radiology or oncology review that the fractures were metastatic in nature; rather bilateral insufficiency fractures likely secondary to the chemotherapeutic agents and/or radiation therapy.

INITIAL CONSERVATIVE CARE

Conservative care was continued with a walker, vitamin D was added to her regimen, and chemotherapy was altered to stop methotrexate.

RETURN TO CLINIC AND CASE PLANNING

Two months post referral, the patient returned with increasing pain focal to the lower back - distinctly different from the chronic lower back pain - and increased dependency on the walker. In consultation with the patient, family, and oncology, it was decided to stabilize the posterior pelvic ring for palliative measures and increasing functionality.

POSTERIOR PELVIC FIXATION

In an outpatient procedure, a CurvaFix IM Implant (170 mm in length) was placed in the upper sacral segment, followed by a transiliac-transsacral CurvaFix IM Implant (150 mm in length) in S2. The patient was discharged home weight bearing as tolerated with a walker. Venous thromboembolism prophylaxis and pain medications were per oncology.

FOLLOW-UP

At 3 weeks, the patient had no pain in the pelvis, was doing well, and “happy” with the surgery. The patient was able to ambulate with a walker and with improved posture. The known chronic back pain was the only limiting factor. The patient expressed “such an improvement in quality of life”.

KEY POINTS

- Strong anterior column fixation from a posterior approach in the prone position is difficult to achieve using other methods.
- The use of a curved implant offers more flexibility on the starting point/trajectory than would be possible for a straight screw.
- The curved implant follows the curved bony corridor and maintains the reduction when locked.
- The steerable guidewire and reamers give tactile feedback and consequent confirmation of containment within the safe osseous pathway.

