

## Osteoporotic Insufficiency Fracture Nonunions Treatment with the CurvaFix® IM System

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### CASE PRESENTATION

A 57-year-old female had a fall at home ~9 months prior to presentation. At the time of the injury, the insufficiency fractures in the posterior and anterior aspects of the pelvis were determined to be stable. The relatively young patient was walking without an assistive device prior to the injury. The patient presented as malnourished, a heavy smoker with osteoporosis and rheumatoid arthritis.

### DIAGNOSIS

CT imaging revealed injuries on both the left and right side of the pelvis. The patient also exhibited degenerative scoliosis of the lower lumbar spine with a kyphotic deformity and spondylolisthesis. Posterior and anterior ring fixation of the nonunions was indicated.

### CURVAFIX IM IMPLANTS

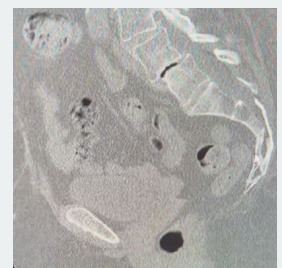
- A CurvaFix IM Implant was successfully placed in the posterior ring. The starting point for the curved implant is typically more inferior and posterior on the lateral wall of the ilium than for a traditional straight screw in order to induce a curve. The curvature of the implant better resists rotational stresses in the posterior pelvis than traditional screws.
- A CurvaFix IM Implant was also successfully placed in the anterior ring. The starting point for the curved implant is typically more superior and posterior than it would be for a straight screw.

### FOLLOW-UP

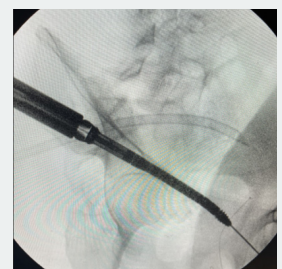
At 2-3 weeks, there were no implant issues. The patient was still using a walker, but pain levels were reduced. At 6-8 weeks, the implant was maintained and the patient was no longer using a walker. The residual pain was suspected as originating from the lumbar spine issues, which had been scheduled for treatment prior to the fall.



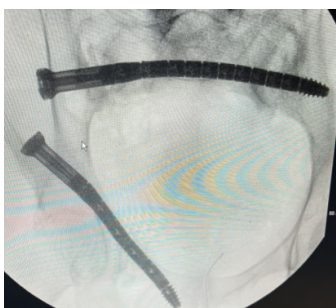
Preoperative



The S4-5 slip/degenerative disk of the lumbar spine



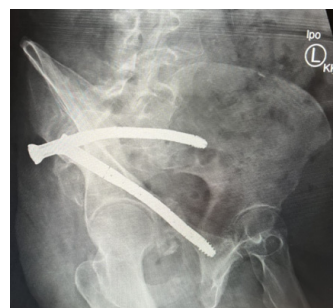
Intraoperative insertion of the implant into the anterior



6-week follow-up



6-week follow-up



6-week follow-up

### KEY POINTS

- The CurvaFix IM Implant was successfully placed in both the posterior and anterior ring of a relatively young patient, but with poor bone quality (osteoporosis).
- The steerability of the ball tipped guidewire and CurvaFix IM Implant allows greater flexibility in the starting locations for both the anterior and posterior pelvic ring.
- A curved construct better resists rotational stresses in the posterior pelvis as well as implant backout in poor bone.