

Management of a Chronic Nonunion Femoral Neck Fracture through Conservative Care: A Case Report.

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Introduction

Chronic femoral neck nonunion is a rare but debilitating sequela of hip fracture, often warranting surgical intervention due to mechanical instability and persistent nociceptive pain. In patients who decline surgery, nonoperative management poses a clinical challenge requiring tailored, multidisciplinary intervention. This case highlights successful conservative treatment in an elderly patient through a pain management and rehabilitation-driven approach..

Case Diagnosis

Chronic displaced nonunion of the right femoral neck with superior-lateral migration

Case Description

A 78-year-old female with a history of schizophrenia, insomnia, and hyperlipidemia presented with chronic right hip pain following a mechanical fall in February 2023. Emergency department imaging confirmed a right femoral neck fracture, and surgical fixation was offered but declined by the patient. She subsequently completed an initial course of physical therapy with partial symptom improvement. Pain was described as constant, activity-limiting, and sharp, radiating to the groin and buttock. Imaging demonstrated a chronic displaced nonunion of the right femoral neck with superior-lateral migration. She was referred to pain management and rehabilitation to explore conservative strategies.

Assessment / Results

On physical exam, she exhibited Trendelenburg gait with right foot external rotation, diminished right lower extremity strength (4-/5), and limited active hip range of motion due to pain. Reflexes were brisk; sensation was intact. The pain management and rehab team tailored a nonoperative strategy that included meloxicam for pharmacologic modulation, a shoe lift to address leg length discrepancy, and targeted physical therapy focused on neuromuscular re-education, gait stabilization, and fall prevention.

At follow-up, the patient reported substantial reduction in pain, improved gait mechanics, and preservation of independence with a rolling walker. Imaging showed no interval progression. Importantly, given the chronicity, any delayed surgical correction would likely be complicated by capsular insufficiency, periarticular soft tissue retraction, and gluteal atrophy factors known to increase implant instability and reduce surgical success rates.

Conclusion

This case demonstrates that in selected patients with chronic femoral neck nonunion, especially those declining surgery, individualized conservative care can lead to meaningful pain relief and functional preservation. Pain management and rehabilitation can play a central role in designing multidisciplinary, patient-centered pathways that respect autonomy while mitigating disability. This approach is particularly relevant in cases where delayed surgical intervention may carry increased biomechanical and soft tissue risks.

