Subtle Hip Joint Subluxation following Femoral Neck Fracture Fixation: An Ominous Sign - A Report of Two Cases

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Introduction

- Subluxation and dislocation of hip occurring after proximal femoral fracture fixation are rare complications and can occur with (septic) or without (aseptic) infection. If aseptic, excessive valgus fixation, neck collapse and capsular injury are the described mechanisms while septic subluxation/dislocation involves tense intra-articular collection or destruction of restraining structures.
- We present two cases of hip subluxation following CCS fixation in transcervical femoral neck fractures which turned out to be due to low grade hip sepsis.

Case 1

- A 40-year-old male presented with fracture of his right femoral neck following an RTA for which CRIF with three CCS was done.
- At two weeks follow-up, radiographs revealed increased medial joint space with subtle subluxation, but the patient was asymptomatic.
- At six weeks, the subluxation had increased but there was no pain or fever and lab tests were within normal limits. Hip joint aspirate was inconclusive and negative on microscopy.
- At 12 weeks follow-up, subluxation was completely resolved. The fracture had united by three months following the debridement.
- At 8 years follow-up, there were no signs of AVN or arthritis and the patient had a good functional outcome.

Case 2

- A decision was made to perform an arthroscopic examination of the hip to establish the cause of subluxation.
- On placement of arthroscopy needle, pus was obtained on aspiration. The joint was lavaged with copious fluids. On testing the hold of screws, all three had good fixation and hence were retained.
- At six weeks following CRIF with three CCS, he complained of mild discomfort in left hip which increased on activity and x-rays revealed a subtle lateral subluxation with minimally increased medial joint space.
- Suspicion for deep-seated infection was high this time after the experience of first case, so hip joint aspiration was done, on which thick yellow coloured pus was obtained that revealed gram negative bacilli and so, drainage of pus and debridement was done.

Discussion & Conclusion

- Both cases were clinically silent and could have gone undiagnosed with disastrous complications.
- Arthroscopic debridement (in case 1) and open debridement with antibiotic cement rod placement (in case 2) helped us salvage the joint in both the cases.
- Timely recognition of subtle subluxation as a sign of post-operative hip joint sepsis and appropriate intervention helped us achieve a good functional outcome in both the patients.

References