

Guidewire Migration Into The Pelvis During Femoral Neck Screw Fixation: Fixing An Uncommon Complication Of A Common Procedure

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INTRODUCTION

Internal fixation of hip fractures involving cannulated devices is a very common orthopaedic surgical procedure. It is important to be aware there exists the possibility of intrapelvic guidewire migration intraoperatively—a complication involving pelvic viscera perforation(1-3) with resultant serious morbidity and mortality(4).

CASE REPORT

A 49 year old gentleman with Garden II neck of left femur fracture underwent screw fixation. Initial guidewire placement was uneventful. Insertion of first cannulated screw followed by its confirmation via image intensifier revealed an unintended guidewire migration into the pelvis through the acetabulum.



The proximal guidewire end was radiographically and directly visualized, buried at its entry point. General surgical was alerted in the event of haemodynamic instability from intra-abdominal injury. Fortunately no acute complication occurred. Post-operatively, urgent CECT pelvis confirmed no intra-abdominal injury.

DISCUSSION

In the case above, the migrated guidewire was successfully retrieved via the initial surgical incision. Since the tip was embedded in the femoral cortex, multiple adjacent shallow drill holes permitted a plier head to fit for a secure grasp allowing guidewire retraction.

In the literature, migrated guidewire removal during hip fracture fixation, depending on guidewire malposition or condition (broken etc.), has required opening of the hip joint; or

involvement of other surgical specialties in removal using the abdominal approach, either via laparotomy(5-6), laparoscopically(7), or ilioinguinally(8).

Our method for removal of migrated guidewire during femoral fracture fixation is the first we know of in the literature(6-12).

Prevention being better than cure, we suggest keeping the protruding guidewire free end long, easing removal and reducing migration; practising single use of guidewires(9-11); less reliance on blind insertion; frequent fluoroscopic visualization, not only anterior but lateral projections(5,11); chiefly, instrument pre-usage inspection, and debris removal(11).

CONCLUSION

Guidewire migration, though rare is the surgeon's nightmare(1-4,12). Hence, it is vital to equip oneself with knowledge in overcoming, and most crucially, prevention.

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