CAN MINIMALLY INVASIVE PERCUTANEOUS PLATE OSTEOSYNTHESIS BE A VIABLE ANSWER IN SUCH SITUATIONS?

Dear Sir,

I read the article by Tan et al[1] with great interest. The authors present an interesting case of acute subtrochanteric fracture in a patient with an ipsilateral "spontaneously" fused hip who was treated successfully with a retrograde intramedullary femoral nail. However, the patient developed femoral nerve palsy which resolved after ten months. I would like to make a few points.

The considerations regarding the use of an antegrade femoral nail in such situations can be understood as it may be difficult to negotiate for a piriformis entry nail owing to the fused hip. To overcome this issue, the authors used a retrograde nail, and I would like to raise a serious concern on this treatment modality in such situations. The authors mentioned that "due to posterior medial calcar comminution and an immobile proximal segment with a sclerotic endosteal canal, technical difficulties were encountered during closed fracture reduction", which eventually required open reduction.[1] Retrograde nailing may give rise to the stress riser effect in the proximal femur, and this effect may be pronounced due to the ipsilateral fused hip. Since patients with a fused hip are usually predisposed to ipsilateral knee arthritis due to the relative increase in load transmission across the joint,[2] violating the knee joint during retrograde nail insertion and predisposing it to further stiffness may not be appropriate. Alternatively, the patient could have been treated with a biological proximal femoral locking plate with the minimally invasive percutaneous plate osteosynthesis technique. Biological osteosynthesis is characterised by the preservation of bone and soft tissue vascularity, and relative rather than absolute fixation.[3] With this, potential problems and complications like technical difficulties, the need for open reduction during surgery, violating the already predisposed knee joint, risks of reaming the femoral canal in a cardiac patient, predisposing the neck of femur to future fracture and femoral nerve palsy could have been obviated.

In this context, I would like to further apprise the authors that trochanteric entry femoral nails are easily available commercially. The concerns regarding the use of piriformis fossa entry antegrade femoral nails may be genuine, as some degree of adduction may be needed at the hip joint during surgery, and these movements are unavailable with an already fused hip. Can the case be made for simply performing trochanteric-entry proximal femoral nailing?

Additionally, for the readers' reference, I would like to invite the authors to comment on their policy of thromboprophylaxis. As mentioned in their article, clexane was stopped a day prior to surgery and restarted on postoperative Day 6. Was there really a need for the perioperative discontinuation of a low-molecular-weight heparin?

Yours sincerely,

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