

# A Rare Case of Complex Neck of Femur and Femoral Head Fracture in a Vascularly Compromised Limb

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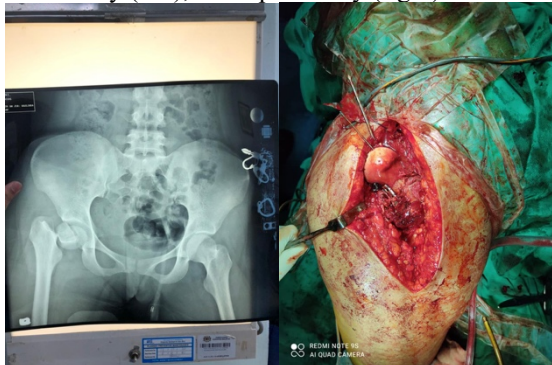
## Introduction

Femoral neck fracture combined with femoral head fracture in a vascularly compromised limb is very rare. To date there is little literature regarding treatment of such injury. Often injury such as this is a result of high energy motor vehicle accident or fall.

## Case report

We report a case of a 20yo female presented with open fracture right tibia fibula with Gustilo III vascular injury and complex fracture right neck of femur involving the femoral head in a post traumatic motor vehicle accident. She is active and ADL independent . Emergency external fixator ,vascular repair, was done and ORIF was done for the right hip within 6 hours of initial injury.

Initial xray (left); intraoperatively (right) :



Xray post op 8 months (above)

Patient was followed up until 8 months post operatively with minimal residual joint stiffness.

## Discussion

Limb salvaging surgery combined with urgent fixation of the femoral head is challenging .For the femoral head fracture, treatment of choice in young patients remain ORIF whilst in the elderly age group, total hip replacement is preferred. In young patients, despite optimal treatment , complication as a result of femoral head fractures may reach up to 50% which includes femoral head avascular necrosis (AVN) and subsequently non union[1].Worse outcomes has been noted when fixation is inadequate or more than 6 hours of injury , mainly due to increased risk of femoral head AVN[2]. Other complications include femoral head osteonecrosis, osteoarthritis an heterotropic ossification.

## Conclusion

A combined femoral head fracture and vascular compromised limb remains challenging to any orthopedic surgeon. Careful clinical evaluation is necessary to achieve optimal outcome.

## Reference

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2. Alonso J.E, et al. A review of the treatment of hip dislocations associated with acetabular fractures. *Clin Orthop Rel Res*. 2000;377:32–43