

Salvage Of Failed Primary Fixation Of Neck Of Femur Fracture In Young Patient Using Myoperiosteal Flap

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INTRODUCTION:

Femoral neck fracture in young adults is quite uncommon and is usually due to high velocity injury. This injury to young patient only account to about 2- 3% of all femoral neck fractures.¹ In this paper we would like to report regarding our attempt at salvaging the neck of femur of a 15 years old that failed the primary fixation after early ambulation using myoperiosteal flap.

CASE REPORT:

A 15 year old boy was allegedly involved in a motorvehicle accident. Post trauma he complained of having pain over the right hip. Upon further examination he was alert and conscious, with stable vitals. However the attitude of the hip is shortened and externally rotated. Radiographic examination reveal closed fracture right neck of femur. He underwent cannulated screw fixation over neck of right femur after parents agreed for the operation. Post operatively he was well.

However on clinic review radiograph show screw cut out as patient not compliance with the non weight bearing protocol. He was then planned for revision of screw fixation neck of right femur and dynamic hip screw with myoperiosteal flap. Intraoperatively gluteus medius and its periosteum attachment at greater trochanter was mobilized to the fracture site and stich with the capsule and surrounding tissue. Post operatively he was well and was advised regarding the postoperative protocol. On follow up after 6 weeks radiographic examination show sign of union with callus formation.

DISCUSSION:

In young patient, femoral neck fractures is usually due to high energy trauma such as motor vehicle accident.

In this case report the patient presented early with failed primary internal fixation but in some neglected trauma patient may present months

after injury. The aim of this method of treatment is to achieve union with restoration of length of the femoral neck and to preserve the head of femur vascularization. Study by Gupta et al reported that periosteal grafting may augment the local blood supply thus enhancing the union of the fracture.² The myoperiosteal flap has been shown to provide good bone formation for laryngotracheal reconstruction but has not been used in orthopaedic practice.³ Method such as vascularized bone grafting rotated on muscle pedicle is also one of the option however However for free vascularized grafting it require microsurgery expertise and long duration of operation but the myoperiosteal flap technique is more simple procedure.

CONCLUSION:

Femoral neck fractures in young adults is uncommon and it is important to treat it as urgent as possible. A failed fixation will lead to increase risk of avascular necrosis which could lead to osteoarthritis later on. Hence any surgery that could postpone joint replacement surgery for the patient will be a useful option for patient benefit.

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