Research Paper Medical science

Study of new modality of fixation in unstable trochantric fractures in elderly and medically compromised patients-a case series

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ABSTRACT

Introduction : Treatment of unstable trochantric fractures in elderly and medically compromised patients are challenging to the orthopaedic surgens . the purpose of this study is to study the results of fixation of trochantric fractures by the reconstruction of posteromedial defect by graft taken from femoral head of the patient (calcar reconstruction) in cemented bipolar hemiarthroplasty and to evaluate efficacy and functional outcome of this procedure.

Case series : We treated 2 old , medically compromised patients having unstable trochantric fractures by cemented bipolar hemiarthroplasty And the reconstruction of posteromedial defect by graft taken from femoral head of the patient (calcar reconstruction) .

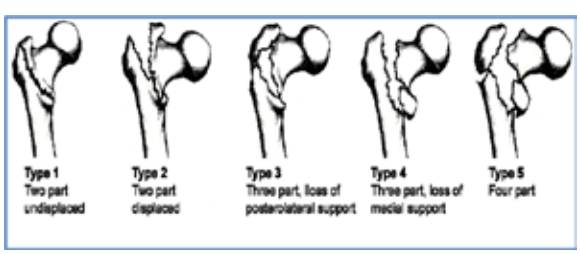
Conclusion: The rehabilitation of patient is faster and easier.Early weight bearing and mobilization and rapid return of patients to their pre-fracture status,especially for elderly and medically compromised patients in whom prolonged bed rest leads to many complications, constitutes a logical basis for consideration of this option.

KEYWORDS | cemented , hemiarthroplasty , trochanter

Introduction

- Intertrochanteric fracture account for nearly half of all fractures of the proximal femur and are mostly caused due to simple fall in elderly.
- Male : female ratio is about 2:1
- Fracture stability is determined by the presence of posteromedial bony contact

Evan Classification



Treatment of unstable trochantric fractures in elderly and medically compromised patients are

challenging to the orthopaedic surgens due to morbidity , delayed weight bearing and mobilization

of the patients the purpose of this study is to study the results of fixation of trochantric fractures

by the reconstruction of posteromedial defect by graft taken from femoral head of the patient

(calcar reconstruction) in cemented bipolar hemiarthroplasty and to evaluate efficacy and functional

outcome of this procedure.

Case -1

A 80 year old female patient came to our department from samajwad nagar with chief complaints

of pain in left hip since 6 days there were history of fall on ground on 13/12/12 .on the basis of

examination and X- rays she diagnosed as unstable fracture intertrochanteric femur left side . all

routine investigations done that were within normal limit and patient posted for surgery .

Procedure and Followup - cemented bipolar hemiarthroplasty wih posteromedial bone graft

support . postoperative x-rays were satisfactory .mobilization with partial weight bearing done on

2nd postoperativeday,fullweight bearing done after two weeks.

Case -2

A 75 year old female patient came to our department from burhanpur with chief complaints of pain

in left hip since 1 day, there were history of fall on ground on 07/01/13 .on the basis of examination

and X- rays she diagnosed as unstable fracture intertrochanteric femur left side . all routine

investigations done that were within normal limit and patient posted for surgery .

Procedure and Followup - cemented bipolar hemiarthroplasty wih posteromedial bone graft

support . postoperative x-rays were satisfactory .mobilization with partial weight bearing done on 3rd

postoperative day , full weight bearing done after two weeks .

Discussion

Advantages of primary bipolar hemiarthroplasty in trochantric fractures

- The rehabilitation of patient is faster and easier.Early

weight bearing and mobilization and rapid return of patients to their pre-fracture status,especially for elderly and medically compromised patients in whom prolonged bed rest leads to many complications, constitutes a logical basis for consideration of this option.

- Hence,should be used where early ambulation is required.
- Stability of cemented prosthesis is greater than other modalities.
- Other advantages include fewer reoperations and decreased hospitalization time.

- In failed fixation,prosthesis is a good choice in elderly patients,with osteoporosis,poor remaining bone stock,however in young with good bone stock and bone density repeat fixation can be considered.
- Hence,extremely elderly (in need of early mobilization),osteoporotic bone and ,unstable fractures and painful preexisting arthitic patient are good choice for prosthesis.

Disadvantages/complication associated with prosthesis

- Operative time and blood loss is increased.
- There is loss of bone stock.
- Prosthetic dislocation is a common problem.
- Loosening of prosthesis.

Advantages of internal fixation of trochantric fractures

- Technically easier and cheaper with fairly good results.
- Decreased operative time and blood loss.
- Useful in young patients where bone density and bone stock is good

Disadvantages/complications associated with internal fixation

- Rehabilitation is delayed,mobilization is late hence complications associated with prolonged bed rest increases like pulmonary infection, embolism,atelectesis,pressure sores.
- Implant failure like plate breaking and screw cut out,common in osteoporotic bone.

Weak and osteoporotic bone does not provide firm purchase of screws. Non-union are more

common in comminuted Unstable trochanteric fracture with loss of medial calcar continuity.

Conclusion

The rehabilitation of patient is faster and easier.Early weight bearing and mobilization and rapid

return of patients to their pre-fracture status,especially for elderly and medically compromised

patients in whom prolonged bed rest leads to many complications, constitutes a logical basis for

consideration of this option.

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