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BIPOLAR HEMIARTHROPLASTY IN ELDERLY PATIENT WITH FRACTURE NECK OF FEMUR

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ABSRACT

Fracture neck of femur are intracapsular fractures which are easy in diagnosis ,but results in serious complication sometimes even death death if not treated in 48 hours .This present case series of 3 elderly patients with fracture neck of femur is managed with bipolar hemiarthroplasty revealed that it is a better procedure for early mobilization and good functional results lowering the morbidity and mortality in elderly. Complete recovery for wide range of movements may take up to 6 months but still the results satisfactory. No incidence of infection reported. None of them complained of complications

INTRODUCTION:

Femoral neck fractures are intracapsular fractures. The life time risk of femoral fractures in females ranges between 40%-50% and in males it is between 12-13%. The risk of femoral fracture increases with age. It is the femoral neck that connects femoral head with shaft. The junctional location makes the neck more prone to fractures. Hip fractures are common injuries especially in old age and they are challenging injuries to treat. It is estimated that by 2050 half of the hip fractures will occur in Asia. The incidence of hip fractures is estimated to increase from 1.68 million in 1990 to 6.30 million in 2050.Hip fractures in elderly population are on rising trend especially in the Indian subcontinent due to various reasons. Diagnosis of hip fracture is a simple task but due to close vascular proximity location a delay of 48 hours from admission to surgery may result in serious adverse effects sometimes death. But a successful operation of hip joint results in painless, stable and adequate range of movements. This is a case series of 3 elderly patients who presented with fracture neck of femur and bipolar hemiarthroplasty is performed.

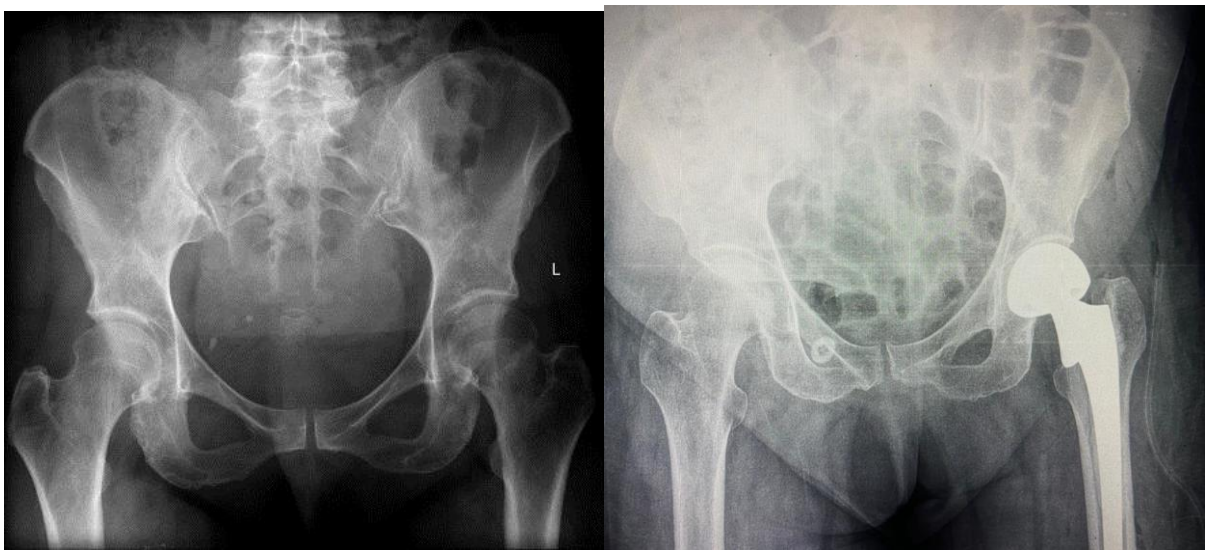
CASE PRESENTATION

CASE 1:

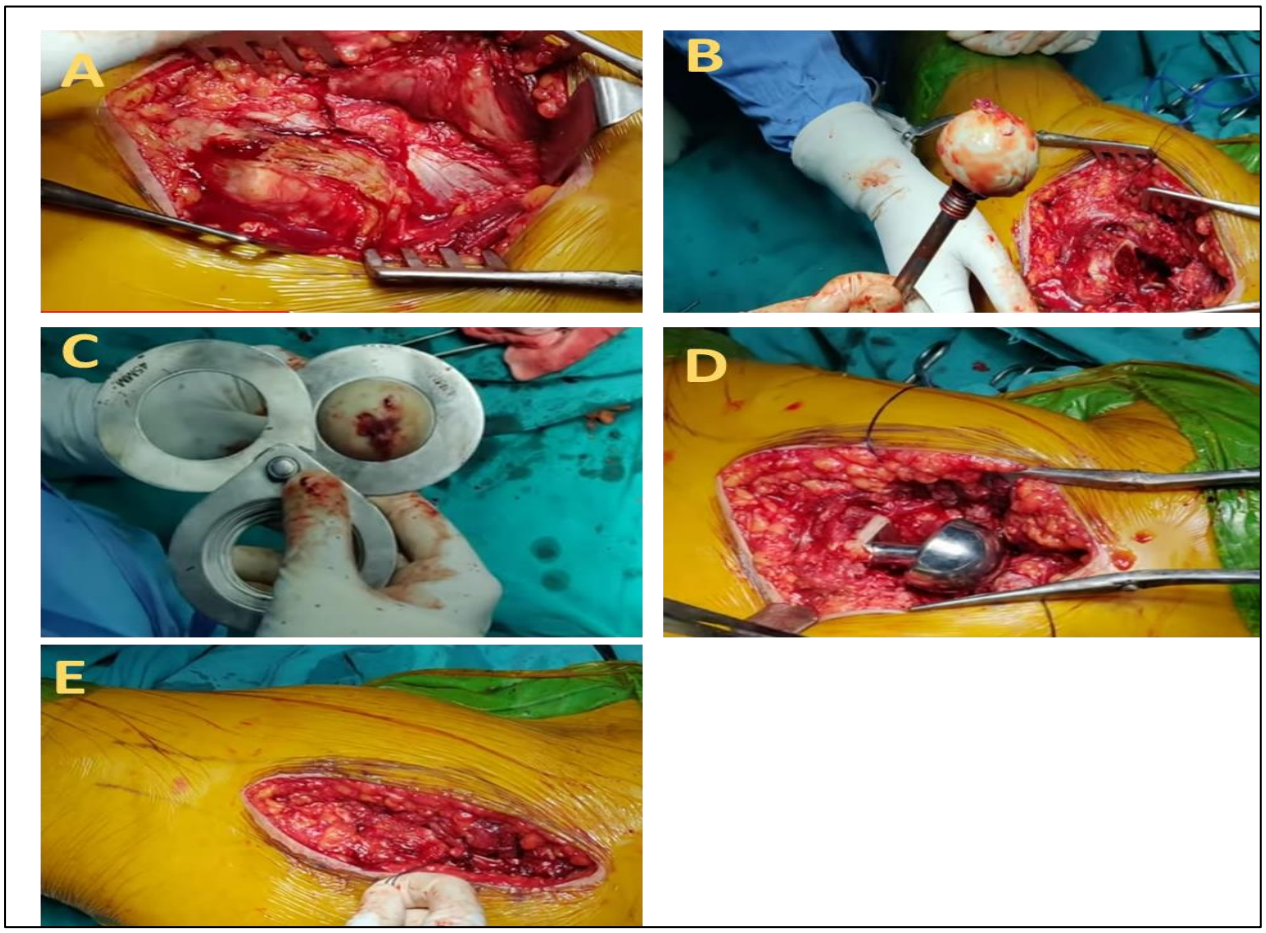
A 62-year-old female presented with history of self-fall at home and sustained injury to left hip and developed pain which is sudden in onset and sharp shooting in nature, no radiating pain, not associated constitutional symptoms, aggravated on movements and relieved by rest. On investigations X-ray pelvis with both hips showed fracture neck of left femur. All the routine investigations are normal and no associated comorbidities. Under spinal anesthesia patient was placed in lateral position, parts painted and draped. Greater trochanter landmark 5-7 cm long incision given. Superficial dissection was done, tensor fascia lata incised and exposed, gluteus medial muscle flap elevated, then joint capsule is exposed, T-shaped incision was given over the capsule, head is removed with cork screw, reaming done through the proximal femur then the prosthesis inserted followed by, cementing done, reduction done

and the wound closed in layers, suturing done, dressing applied. Post op period is uneventful, wound healing is good and the drain tube culture revealed no growth, suture removal was done on 17 th day. The patient is advised mobilization with the help of walker for few days.

Preoperative x ray **Postoperative x ray**



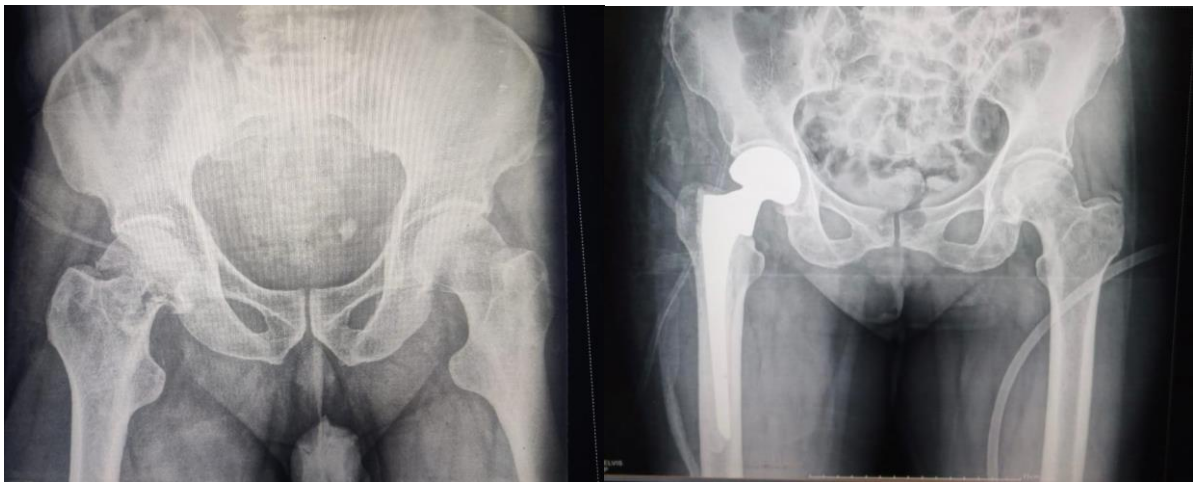
Intraoperative pictures



CASE2:

A 61-year-old male presented with complaints of pain in right hip for 15 days. On detailed history he revealed that he has sustained RTA of right hip by a two-wheeler three months back and first aid was done at outside hospital for bleeding. On investigations X-ray pelvis with both hips showed fracture neck of right femur. Bipolar hemi arthroplasty was done under spinal anesthesia patient was placed in lateral position, parts painted and draped. Greater trochanter landmark 5-7 cm long incision given. Superficial dissection was done, tensor fascia lata is split and exposed, gluteus medial muscle flap elevated and later the incision is extended inferior through the fibres of vastus lateralis then joint capsule is exposed, T-shaped incision was given over the capsule, head is removed with cork screw ,head size was found to be 51 .Trail reaming done through the proximal femur then the prosthesis inserted followed by, cementing done, reduction done and the wound closed in layers, suturing done, dressing applied. Intra op and Post op period is uneventful, wound healing is good and the drain tube culture revealed no growth, suture removal was done on 21st day. The patient is advised mobilization with the help of walker for few days.

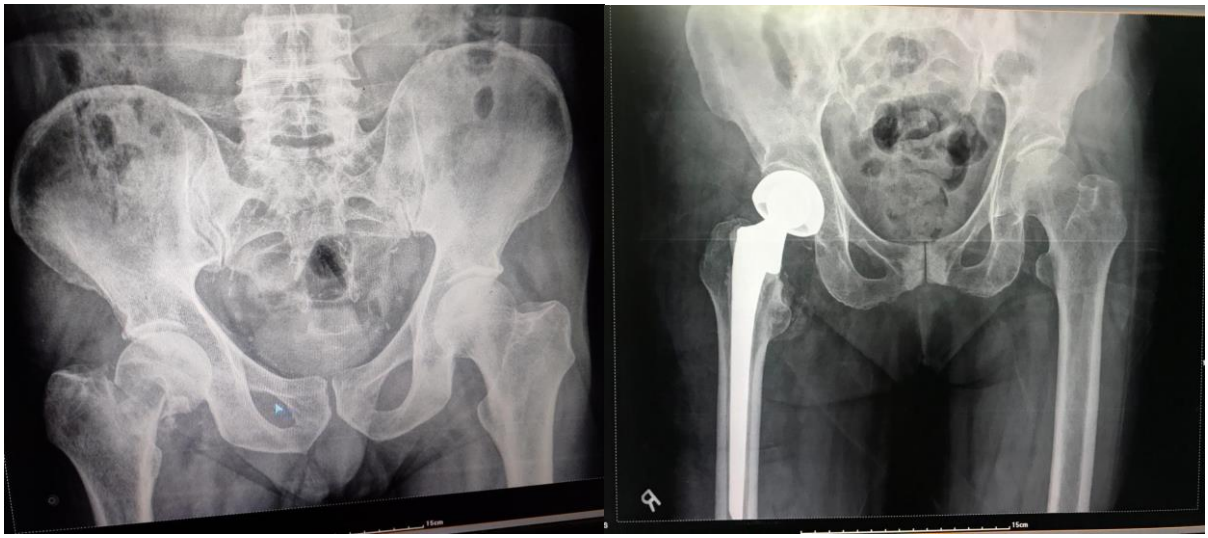
Preoperative xray. **Postoperative xray**



CASE 3:

A 60 years old female presented with history of fall while crossing the road, since then she complained of pain in right femur. which is sudden in onset and sharp shooting in nature, no radiating pain, aggravated on movements and relieved by rest. On investigations X-ray pelvis with both hips showed fracture neck of right femur. All the routine investigations are normal and she is known diabetic and hypertensive and is on regular medication. Under spinal anesthesia patient was placed in lateral position, parts painted and draped. Greater trochanter landmark 7 cm long incision given. Superficial dissection was done, tensor fascia lata incised and exposed, gluteus medial muscle flap elevated, then joint capsule is exposed, T-shaped incision was given over the capsule, head is removed with cork screw, reaming done through the proximal femur then the prosthesis inserted followed by, cementing done, reduction done and the wound closed in layers, suturing done, dressing applied. Post op period is uneventful, wound healing is good and the drain tube culture revealed no growth, suture removal was done on 19 th day. The patient is advised mobilization with the help of walker for few days.

Preoperative xray. **Postoperative xray**



DISCUSSION:

The average age of patients in our study is 60.5 years It is observed in several studies that the average age of neck of femur fractures is identified to be round 50-75 years which correlates with our study findings. Sub capital or transcervical type or displacement type (Gardens3 and 4) are not taken into criteria to choose bipolar hemiarthroplasty as per Bavadekar and Manelkar (7). We also followed the same criteria for selection of patients for surgery. For elderly patients with Garden type 1and 2 fractures also we didn't opt bipolar hemiarthroplasty. Average duration of hospital stay was observed to be 19.5 days. There are no operative deaths, post op deaths in the first 12 months of surgery attributing to good intraoperative and post op care and appropriate selection of patients and timely intervention. In our case series we observed that 66% of cases have no pain and 33% of cases have slight pain. No incidence of infection reported. None of them complained of complications.

CONCLUSION:

Bipolar hemiarthroplasty for neck of femur is the best option of treatment in elderly population. It will help in early mobilization thereby lowering the morbidity and mortality in elderly. Complete recovery for wide range of movements may take up to 6 months but still the results satisfactory.

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