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RESEARCH ARTICLE

ASEPTIC LOOSENING OF ISOLATED CEMENTED ACETABULAR CUP.

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Abstract

Introduction:-Total hip arthroplasty has become established as a reliable and successful orthopaedic procedure for the relief of hip pain form Avascular necrosis and arthritic changes to daily routine activities.

Over 1 million Total Hip Replacements (THR) performed worldwide each year. About 7-10% underwent a revision THR surgery in that 75% due to aseptic loosening of THR. But isolated acetabular aseptic loosening is very rare. Isolated Acetabular cup loosening is more common in cemented than uncemented cup.

Material & Method:- A 54 year old female had complaints of pain over right hip since 45 days and difficulty on walking since 15 days. No discharging sinus and no symptoms of infection. Then xray showed rotation of right side acetabular cup and ct scan done for confirmation showing A 3.5 mm gap seen between cup and acetabulum on right side with loosening and anterior displacement of cup of right side prosthesis. Then patient underwent revision uncemented acetabular replacement and old cup was sent for pus culture and sensitivity which showed no organism.

Result:- After followup of 1.5, 3 and 6 months. pt is walking full weight bearing without any complaints of pain and limping.

Conclusion:- As aseptic loosening of isolated acetabular cup in cemented THR is very rare cause of revision THR surgery, in this uncemented acetabular cup replacement gives an excellent result and outcome.

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Introduction:-

Total Hip Arthroplasty is an orthopaedic procedure that involves the surgical excision of the head and proximal neck of the femur and removal of the acetabular cartilage and subchondral bone.. An acetabular component composed of metal with poly liner, Metal fixed with either cement (in cemented THR) or screw (in uncemented).Femoral canal preparation for femoral component. Neck & head size adjustment according to particular case. To yield successful results, these total hip arthroplasty components must be fixed firmly to the bone, either with polymethylacrylate cement or, in more recent uncemented designs, by bony ingrowth into a porous coating on the implant, resulting in 'biologic' fixation.

Total hip arthroplasty has become established as a reliable and successful orthopaedic procedure for the relief of hip pain form Avascular necrosis and arthritic changes to improvement daily routine activities. Over 1 million Total Hip Replacements (THR) performed worldwide each year[1].

Revision total hip arthroplasty is carried out in patients where there is failure of a previously implanted prosthesis. In such cases, all cement and prosthetic components are removed carefully to avoid penetrating or fracturing the bone. New components are then implanted and fixed with either a cemented or uncemented technique. [2]

Surgical indications:- for revision thr surgeries include loosening of the prosthetic components, acute or chronic deep infections, mechanical failure of the prosthetic components and chronic recurrent dislocation[3].

About 7-10% underwent a revision THR surgery in that 75% due to aseptic loosening of THR. But isolated acetabular aseptic loosening is very rare. Isolated Acetabular cup loosening is more common in cemented than uncemented cup.[4]

As isolated aseptic loosening of acetabular cup loosening in cemented THR is very rare presentation so i thought to write this paper.

Material & method:-

A 54 year old female had complaints of pain over b/l Hip Right>Left since 2 years & difficulty in walking since 6 months. X-ray PBH and frog leg view was done and signs of avn seen on x-ray then MRI pelvis with both hips was done showing B/L grade 4 AVN of head of femur. Patient underwent a B/L cemented THR 1st right and after 1 month left side THR 5 years back. Patient was stable and walking full weight bearing without complaint of limping or pain since 5 years. Patient was k/c/o HTN since 5 years under regular medications.

Since 45 days she suddenly developed pain over right hip and difficulty on walking since 15 days. No discharging sinus and no symptoms of infection. Then xray showed rotation of right side acetabular cup and 3D CT scan done for confirmation showing A 3.5 mm gap seen between cup and acetabulum on right side with loosening and anterior displacement of cup of right side prosthesis.

Patient was operated with Posterior moore Approach with lateral position on simple operation table in laminar ot with full aseptic precaution. Cemented acetabular cup was removed and sent for culture & sensitivity. Stem was not loose so only uncemented acetabular cup is placed and fixed with screws. Intraop movements & limb length were confirmed. Then patient was shifted to recovery after aseptic dressing & stable vitals. Drain was removed on 3rd post op day.

Patient was started full weight bearing from 4th postop day with walker and after 2 weeks without walker.

Culture & sensitivity report showed no organism.

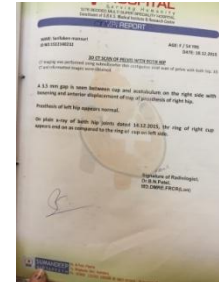
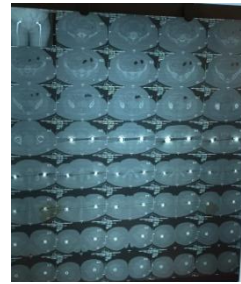
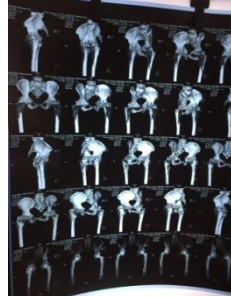
Result:-

Immediate after surgery pain was relieved but limp was present. After followup of 1.5, 3 and 6 months. pt is walking full weight bearing without any complaints of pain and limping.

Case:-



Preop



3 d ct scan



Post op



1.5 months Followup



3 months followup



6 months followup

Conclusion:-

As aseptic loosening of isolated acetabular cup in cemented THR is very rare case of revision THR surgery, in this uncemented acetabular cup replacement gives an excellent result and outcome.

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