

# [The correct the deformity. patient were educated for](https://assignbuster.com/the-correct-the-deformity-patient-were-educated-for/)

The hip joint is affected by a variety of pathologies likecongenital , traumatic, infective and degenerative. Considering these facts, itis obvious that a very large number of procedures have been described inliterature for the reconstruction of hip.

Orthopaedic surgeons continue todebate on  which surgical approach isbest for hip joint arthroplasty because each approach has its merits andlimitations. A Cochrane review by Jollesand Bogoch14 concluded, despite numerous studies examining theeffect of surgical approach in , the quality and quantity of such trials wereinsufficient to enable a firm conclusion regarding whether one approach wassuperior to the other. Hip dislocation, abductor insufficiency, fracture andnerve injury are complications of hip joint arthroplasty, although theirrelative risk varies by approach. Various clinical trials have sought to elicitdifferences in patient-reported outcomes, complication rates and return tofunction among the surgical approaches. Hence we need the surgical approachwhich provides the best clinical outcome for the early rehabilitation andrecovery of the patient.

METHODSThe study was carried out in the department of Orthopaedics, S. N. Medical college, Agra from January 2016 to March 2017. The cases wereselected among the patients attending emergency as well as outdoor clinics ofdept. of Orthopaedics. All cases of traumatic and degenerative hip pathologiesadmitted in S. N.

Medical college Agra, were included in the study. 52 cases oftraumatic and degenerative conditions were treated by hip joint arthroplasty.  Preoperatively patients were kept on skin orskeletal traction in cases of trauma, to relieve pain, to check rotation and tocorrect the deformity. Patient were educated for quadriceps exercise, glutealexercise, toe movement and breathing exercise. Surgicaltechnique34 surgeries were done using the posterior approach and 18were done using the anterolateral approach to the hip joint .

PosteriorApproach- The skin incision is started about 10 cm distal to thepostero superior iliac spine and extended distally and laterally parallel tothe fibers of the gluteus maximus muscle to the posterior margin of the greatertrochanter. Then direct the incision distally 10 to 13 cm parallel with theshaft of femur. Expose and divide the deep fascia in line with the skinincision. By blunt dissection, separate the fibers of the gluteus maximus.

Retract the proximal fibers of the gluteus maximus muscle proximally and exposethe greater trochanter. The distal fibers are retracted distally and theirinsertion is divided partially into the linea aspera in line with the distalpart of the incision. Now, expose and divide the gemelli and obturator internusand the tendon of the piriformis muscle at their insertion on the femur and retractthe muscles medially. Expose the posterior part of the capsule of the hip joint. Incise the capsule from distal to proximal along the line of the femoral neckto the the acetabular rim.

Distal part of the capsule is detached from the femur. Flex the thigh and knee by 90°, internally rotate the thigh, and dislocate thehip posteriorly. AnterolateralApproach- Start with a straight longitudinal incision on the center ofthe greater trochanter. The caudal half of the incision to the trochanter tipwas straight; the rest cranial half of the incision to the trochanter tip wascurved slightly to the dorsal side of the greater trochanter. The length of theskin incision ranged between 7 to 12 cm, depending on the physical condition ofthe patient and the anticipated size of the implant  components. The fascia lata is divided in linewith the skin incision and centered over the greater trochanter. The tensorfasciae latae is divided anteriorly and the gluteus maximus posteriorlyexposing the origin of the vastus lateralis and the insertion of the gluteusmedius. Now the anterior 1/3 of the abductors is released, leaving theposterior 2/3 still attached to the trochanter.

The incision is carriedproximally in line with the fibers of the gluteus medius at the junction of themiddle and anterior 1/3 of the muscle. Distally, the incision is carriedanteriorly in line with the fibers of the vastus lateralis muscle down to thebone along the anterolateral surface of the femur. The neck is now exposed. After making a double door-shaped opening in the joint capsule, remove thehead-neck fragment in situ or after dislocation. PostoperativeCareIdeally, rehabilitation should begin before the operation.

Apatient who is motivated and informed and has appropriate goals is betterparticipant in the rehabilitation process. A preoperative session was used toteach the appropriate mechanisms for transfers, the use of supportive devices, dislocation precautions. Hip extension excercises are encouraged, especially if therehas been a pre-existing flexion deformity. The patient should spend time in thesupine position each day, and pillows beneath the knee are discouraged. The hipflexures can be stretched early by flexing the opposite hip and maintaining theoperated limb flat on bed(Thomas test). Partial Weight bearing was done after three days while totalweight bearing was done after 14 days in cemented bipolar and cemented THR.

Skin stitches removed after 12 days. Quadriceps exercise ismostly initiated 2 to 3 postoperative day while knee bending is done at 6 to 8postoperative day. Activities like squatting, cross legs sitting and otherpositions which produce repetitive impact loading or extremes of positioning ofthe hip are unwise, and the patient should be warned that such activities canincrease the risk of failure of arthroplasty. Postoperative antibiotics were given.

In the immediatepostoperative period, the hip is positioned in approximately 15 degrees ofabduction while the patient is recovering from anaesthetic. We used atriangular pillow to maintain abduction and prevent extremes of flexion. Drainsare removed 24 to 48 hours after surgery. StatisticalAnalysisFisher exact test and T tests were used.

P <0. 05 wasconsidered as significant difference. RESULTS63.

46% of the patients (33) underwent cemented bipolarhemiarthroplasty, and 36. 54% of the patients (19) underwent cemented total hipreplacement. Length ofhospital stayThe average length of hospital stay was 11. 74±1. 78 days forthe posterior group and 10. 94±1.

47 days for the anterolateral group. Functionaloutcome scoreThe final result in both the groups were interpreted in theterms of recovery of the patients. ModifiedMerle  D Aubigne and Postel’s methodwas used for functional assessment. The means of scores of both the groups atthe end of 6 month followup period were compared and were found to besignificantly different. The anterolateral group had a mean score of 36. 22 witha standard deviation of 1. 17 compared to the mean score of posterior groupwhich was 35.

35 with standard deviation of 1. 28. In the study as the time offollowup is increasing the patients are getting better pain score butrelatively more in cases operated by anterolateral approach. However the final Pain score after followup of 6 monthswas identical. Muscle powerand motion score increased in both groups during the followup periodbut it was slightly more in the cases operated using anterolateral approach.

Therewas progressive improvement in Functionscore of the hip joint in the followups, more in anterolateral group. 79. 4% of the patients of the posterior group were having normal function of hipcompared to 100% of the patients of the anterolateral group who were havingnormal function of hip at the end of 6 month followup.

There was improvement inthe Walking score in both the groupsin each followup. However the anterolateral group showed slightly moreimprovement as compared to the posterior group. DislocationDislocation of the prosthesis in the late postoperativeperiod was found to be a complication in the posterior group. 2 out of the 34cases operated using the posterior approach showed dislocation of theprosthesis. It means that the complication rate was   5.

88 %. No dislocation was found in theanterolateral group. DiscussionIn our study of 52 cases we used two surgical approaches ie. Posterior and Anterolateral approach for hip joint arthroplasty. We usedposterior approach in 34 patients and anterolateral approach in 18 patients. Wehave compared the results and complications in these two groups. Theadvantages of the anterolateral approach are decreased incidence ofdislocations and providing good exposure of the acetabulum.

There are apparentdrawbacks, however. The anterior part of gluteus medius can limit the proximalfemoral exposure, necessitating tenotomy of these fibers. The inferior branchof the superior gluteal nerve is also vulnerable to damage.

Both of thesefactors can cause abductor weakness and this in turn can lead to an increasedincidence of patients having a postoperative limp and diminished patientsatisfaction. In a clinical comparison of the anterolateral and posterolateralapproaches to the hip done by Ritter et. al. it was suggested that although the number of patients with limp washigher in the anterolateral group, the difference was not statisticallydifferent. However in our study no such gait disturbance due to abductorweakness was reported in either of the groups at the end of 6 month followup.

Theposterior approach has the benefits of preserving abductor function and providinggood exposure of the proximal femur and acetabulum. The main disadvantage seemsto be the reportedly higher dislocation rates compared with those of otherapproaches. In a study conducted by Ganget. al. no patients with the anterolateral approach experienceddislocation. One hip (5%) in the posterior group had dislocation30. Palan et.

al. in their study found thatthe overall incidence of dislocation by 5 years was 1. 9% (21 of 1089 cases).

The dislocation rate was 1. 7% in the anterolateral group and 2. 3% in theposterior group28. Petis et. al.

found in their study that dislocation rates for the posterior approach reported  varied from 1% to 5%32. In our study adislocation rate of 5. 88% was found in the posterior group.

Out of 34 patientstreated by posterior approach 2 patients showed postoperative dislocation. Boththe approaches were found to be excellent for hip joint arthroplasty as themean functional outcome score as assessed by the Modified Merle D’Aubigne and Postel’s Method was 36. 22±1. 17 for theanterolateral group and 35.

35±1. 28 for the posterior group, both were more than32 ie. excellent outcome. In hands of an experienced surgeon both approacheshave an excellent outcome.

However when compared to each other theAnterolateral group showed better recovery as compared to the Posterior group.