

SUMMARY AND CONCLUSIONS

The present follow-up study (non-randomized) aimed at assessing clinical as well as functional outcome of primary total hip arthroplasty and bipolar (25 cases each) done for intra-capsular fracture neck of femur in elderly people having Garden type III and IV fractures. 50 patients of both groups having intra-capsular fracture neck femur were selected intra-operatively by operating surgeon depending upon the acetabular condition, pre-fracture mobility & morbidity as well as general condition of patient and treated with cemented total hip arthroplasty and bipolar, through posterior approach from the year 2009 to 2011 in the Department of Orthopedics, Govt. Medical College, Patiala.

1. A follow-up study of 50 cases of intra-capsular fracture neck of femur were selected intra-operatively by operating surgeon depending upon the acetabular condition, pre-fracture mobility & morbidity as well as general condition of patient treated by either cemented total hip replacement or bipolar. The type of fracture has not been considered in allocating the procedures.

2. The age of patients varied from 61 years to 90 year with the average age 70.64 years for PHR and 67.4 years for THR having maximum cases in 7th decade as compared to minimum in 9th decade in both groups.

3. There were male to female ratio of 0.4: 0.6 for both PHR and THR.

4. The left hip was involved in 16 cases (60%) in THR and right side 14 (56%) in PHR.

5. Trivial trauma was found to be the commonest nature of injury (92%) because of senile and postmenopausal osteoporosis.

6. Majority of cases 22 cases (88%) for PHR and 21 cases

(84%) were operated within first week following injury.

7. Majority of cases 24 (96%) for PHR and 21 cases (84%) for THR were not associated with any other injury highlighting the trivial nature of trauma in these cases.

8. All of cases belonged to Garden's type III or IV displaced fractures and fracture type has not been included in procedure allocation to either group.

9. All of cases were operated upon by posterior approach under spinal or epidural or general anesthesia.

10. Abduction pillow was used post-operatively in all the cases.

11. Partial weight bearing was started on 5th postoperative day and patients were discharged with average duration of post-operative hospital stay of 11.6 days in PHR and 13.2 days in THR cases. Regular follow-up was done monthly for one year and then every six months. Patients were followed-up for a maximum of 22 months.

12. The average post-operative blood loss in PHR was 80 ml as compared to 108 ml in THR

13. The average duration of operation in PHR was 52 min as compared to 74 min in THR.

14. Unprotected weight bearing were started on an average 3.3 weeks in PHR cases and on an average of 4.3 weeks in THR cases.

15. Results were evaluated by using criteria of Salvati Hip score and all cases in PHR had shown excellent results in pain, mobility, functional as well as motion status and daily activity of life as compared to THR which had shown excellent results in 92% cases.

16. The average cost of surgery is comparable about Rs 20500/- in both groups, but having prolonged hospital stay in THR cases.

17. Most of the complications have occurred in old age group patients. Two patients in each category developed urinary tract infection which was managed conservatively by antibiotics. No patient in PHR and one patient in THR developed superficial wound infection at operated site, which was also managed conservatively by antibiotic and aseptic dressing. Only one patient THR has developed traumatic dislocation that was managed by closed reduction followed by traction for 6 weeks.

18. In both groups, no patient had undergone revision of surgery due to any of complications like aseptic loosening, dislocation, sepsis and long term follow-up is required to assess the same.

19. One of patient in PHR and 2 patients in THR developed limb shortening of 2 cms for which shoe raise was given, but during follow -up, no difference in pain, mobility, functional as well as motion status has been observed in these cases.

20. Excellent results were obtained in 25 cases (100%) in PHR and 23 cases (92%) in THR at follow-up of more than one and half year. All of these patients were able to perform qualitatively as well as quantitatively their daily pursuits independently and were satisfied with the results.

Thus cemented partial hip arthroplasty is little better, economical and a very useful procedure for primary treatment of intra-capsular fracture neck femur than total hip arthroplasty in an elderly active ambulant cases. These procedures have markedly improved clinical and functional outcome of patients in pain, mobility and range of motion as well as daily activities of life. Prosthetic replacement avoids the problems of avascular necrosis and non-union and recumbency related problems in these elderly patients. Arthroplasty is associated with more independent living, both qualitatively as well as quantitatively and was more cost effective and provide satisfactory long term results.

So, it is summarized that cemented partial hip arthroplasty

is little better and economical than total hip arthroplasty in intra-capsular fracture neck of femur in elderly active and mobile patients.