



**To study the complication of total hip arthroplasty using an open cohort study**

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**Abstract**

**Background:** Various complication included neurovascular injuries, fracture femur, acetabulum, and pubic rami, limb length discrepancy, dislocation, postoperative infection, which are catastrophic, urinary bladder infection.

**Methods:** This was an open cohort, prospective study conducted on patients presenting to the Department of Orthopaedics and undergoing surgical intervention i.e., total hip arthroplasty. (All the procedures were performed by a specific senior surgeon

**Result:** In post-operative complications 2 cases had deep (periprosthetic joint infection, 1 case had superficial (extra-articular) infection and 1 case had limb length discrepancy of 1.5cm.

**Conclusion:** In our study, four patients had complications.

**Keywords:** Complication, THA, Orthopaedics

**Introduction**

THA is an elective procedure and should be considered as an option among other alternatives. The decision to proceed with THA is made with an understanding of the potential risks and benefits. A thorough understanding of both the procedure and the anticipated outcome is an important part of the decision-making process. For the appropriate candidate, THA can be a life-altering procedure that relieves pain, improves function, and enhances quality of life.<sup>1</sup>

Like any other operative procedures THA does have its limitations and complications.

Absolute contraindication includes active infection of the hip joint of infection in any others region of the body and any medical condition that compromise patients' ability to with stand anaesthesia, metabolic demands of surgery, wound healing and significant rehabilitation necessary to ensure a favorable functional outcome. Relative contraindication includes any process rapidly destroying bone, neuropathic joint, insufficiency of abductor mechanism and urinary tract infection particularly with Klebsiella.<sup>2</sup>

Various complication included neurovascular injuries, fracture femur, acetabulum, and pubic rami, limb length discrepancy, dislocation, postoperative infection, which are catastrophic, urinary bladder infection. Femoral and acetabular loosening have emerged as the most serious long-term complication.<sup>3</sup>

Material and method

### Study area

Department of orthopedics, Dr. R.P.G.M.C. Kangra at Tanda, Himachal Pradesh

### Study design

This was an open cohort, prospective study.

### Study population

Patients presenting to the Department of Orthopaedics and undergoing surgical intervention i.e., total hip arthroplasty. (All the procedures were performed by a specific senior surgeon)

### Study duration

The patients were recruited for a period of one year. The first case was included in the month of February 2019 and last case on February 2020. The last patient was recruited 1 year from the day of start of study.

All the patients fulfilling the inclusion criteria were recruited and followed-up for maximum 18 months and minimum of 6 months.

### Sample size

Forty cases

### Inclusion criteria

- Patients undergoing Total hip arthroplasty
- Those gave consent for inclusion in the study

### Exclusion criteria

1. Those patients in whom subjective assessment was difficult after surgery like one having compromised neurological functions e.g., in case of Alzheimer's disease, Parkinsonism, cerebral palsy and patients with mental retardation.
2. Those who did not give consent for participation in the study

The study was initiated following approval from Institutional Ethics Committee, Dr. RPGMC Kangra at Tanda. The patients had the rights to withdraw from participation in the study.

### Results

In post-operative complications 5% had deep (perprosthetic joint infection, 2.5% had superficial (extra-articular) infection and 2.5% had limb length discrepancy of 1.5cm.

Table 1: Distribution on the basis of Post-operative Complications

Post-operative Complications	Frequency	Percent
Limb length discrepancy	1	2.5
Deep (Periprosthetic joint) infection	2	5
Superficial(extra articular) infection	1	2.5
No	36	90
Total	40	100.0

### Discussion

In our study, four patients had complications. Two patients had prosthetic infection for which repeated

toileting and debridement was done, and final outcome was girdle stone arthroplasty of both the patients and one patient had superficial infection which was cured with toileting and debridement of wound with antibiotic beads placement, and which was removed after 3 months of placement. One patient with bilateral AVN with OA had limb length discrepancy of 1.5 cm after the patient underwent THR on both sides.

Roberts et al<sup>4</sup> observed, four cases of dislocation, three cases of femoral component loosening and one wound infection. There were no wound hematomas and heterotopic ossification. In the study by Morrey, no statistically significant difference was found in the incidence of heterotopic ossification among the three different approaches used for THR i.e., anterolateral, trans trochanteric and posterior. We had no post-operative dislocation. Careful pre-operative 160 isolation and preservation of capsule and rotators, excellent mayocapsuloplasty and soft tissue balancing with a combination of implant suited best to individualized patient accounted for this.

#### Conclusion

In our study, four patients had complications.

#### References

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