



Demographic profile of patients undergoing total hip replacement at tertiary level hospital in sub Himalayan region

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Abstract

Background: Total Hip arthroplasty (THA) is one of the most cost-effective and consistently successful surgeries performed in orthopaedics. THA provides reliable outcomes for patients suffering from end-stage degenerative hip osteoarthritis (OA), specifically pain relief, functional restoration, and overall improved quality of life.

Methods: Retrospective and Prospective Study conducted at Department of Orthopedics, R.P.G.M.C. Kangra at Tanda, Himachal Pradesh

Result: Mean age of the patients was 51 years. 30 (52.6%) patients belong age group 41-60 followed by 14 (24.6%) belongs 24-40 age group while remaining 13 (22.8%) patients were in >60 age group. Male to female ratio was 2.35:1. 51 (89.5%) patients belonged to rural area and 6 (10.5%) patients were from urban area. 21 (36.8%) patients were in middle education group 18 (31.6%) patients were in matriculation group 7 (12.3%) patients were in Higher secondary group 6 (8.8%) patients were in graduate group followed by 5 patients were in primary education group.

Conclusion: 32 (56.1%) patients were in lower middle class and 20 (35.1%) patients were in upper lower class followed by 5 (8.8%) patients in upper middle class in socio economic status

Keywords: Age, Sex, SES

Introduction

Total Hip arthroplasty (THA) is one of the most cost-effective and consistently successful surgeries performed in orthopaedics. THA provides reliable outcomes for patients suffering from end-stage degenerative hip osteoarthritis (OA), specifically pain relief, functional restoration, and overall improved quality of life. OA affects millions of Americans, and with an incidence of 88 symptomatic cases per 100,000 patients per year, translating to hip OA claiming the top underlying diagnosis leading to THA.¹ Other underlying diagnoses include hip osteonecrosis (ON), congenital hip disorders, and inflammatory arthritis.

However, the burden of hip arthritis is on the rise and it is estimated that more than 950,000 primary and revision THAs were performed globally in 2010.² The profile of the patients having their hips replaced is changing as well from the elderly with minimal needs to the young adult who wishes to have the maximum from their hip. Surgeons performing a THA are therefore presented with a unique challenge of meeting high patient expectations and ensuring excellent outcomes and at the same time using the most evidence-based and cost-effective implants and bearing surface technology. Furthermore, the current health economic environment worldwide has made it more challenging to deliver this, especially in a public system.

Material and method

Study area: Department of Orthopedics, R.P.G.M.C. Kangra at Tanda, Himachal Pradesh

Study design: Retrospective and Prospective Study

Study population: Patients operated by Total Hip Arthroplasty (THA) over a period of previous 5 years and year in study duration at Department of Orthopedics.

Study duration:

One year (2019-2020)

Sample size: All patients operated with THA during study period.

All patients fulfilling the inclusion criteria and following ethical clearance were included in the study.

Inclusion criteria

- All patients with Primary or Secondary Osteoarthritis of hip, AVN, Ankylosing Spondylitis, Rheumatoid Arthritis, Osteoarticular Tuberculosis of Hip, Fracture Neck of Femur in select group of patients.
- Consent to participate in the study

Exclusion criteria

- Patients not fulfilling inclusion criteria
- 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 right to withdraw from participation in the study any time.

Results

Table: 1 Patient Distribution on the basis of Age (n=57)

Age	Frequency	Percentage %
20-40	14	24.6%
41-60	30	52.6%
>60	13	22.8%
Total	57	100.0%

Mean age of the patients was 51 years. 30 (52.6%) patients belong age group 41-60 followed by 14 (24.6%) belongs 24-40 age group while remaining 13 (22.8%) patients were in >60 age group.

Table 2: Patient Distribution on the basis of Sex (n=57)

Sex	Frequency	Percentage%
Male	40	70.2
Female	17	29.8
Total	57	100.0

In our study, 40 (70.2%) patients were male followed by 17 (29.8%) patients were female

Table 3: Patient Distribution on the basis of Residence (n=57).

Residence	Frequency	Percentage%
Urban	6	10.5%
Rural	51	89.5%
Total	57	100.0%

In our study, 51 (89.5%) patients belonged to rural area and 6 (10.5%) patients were from urban area.

Table 4: Patient Distribution on the basis of Education (n=57).

Education	Frequency	Percentage%
Graduate	6	10.5
Higher secondary	7	12.3
Matriculation	18	31.6
Middle	21	36.8
Primary	5	8.8
Total	57	100.0

In our study, 21 (36.8%) patients were in middle education group 18 (31.6%) patients were in matriculation group 7 (12.3%) patients were in Higher secondary group 6 (8.8%) patients were in graduate group followed by 5 patients were in primary education group.

Table 5: Patient Distribution on the basis of Socio-economic status (n=57).

Socio Economic Status	Frequency	Percentage%
Lower Middle	32	56.1
Upper lower	20	35.1
Upper Middle	5	8.8
Total	57	100.0

Our study observed that 32 (56.1%) patients were in lower middle class and 20 (35.1%) patients were in upper lower class followed by 5 (8.8%) patients in upper middle class in socio economic status

Discussion

A stable, painless and mobile hip is required for normal locomotion. At present the most common condition affecting hip of adult population is osteoarthritis; resulting in severe hip pain, restriction of movements and alteration in day-to-day activities. Due to rapidly expanding and improving health care management, longevity of individuals has increased over past few decades; which has increased the occurrence of chronic disabling conditions of the hip such as osteoarthritis, inflammatory arthritis.

In western literature, THR has been primarily described for the patients in 50 years or above. In our study, mean age of the patients was 51 years. 30 (52.6%) patients belong age group 41-60. In the study by Jayaram et al, majority of the patients were from the age group of 41-45 years (48%).³³The mean age was 49.2 year. In our study, there was male pre-ponderance. BK Dhaon et al they treated 47 hips in 34 patients (21 unilateral and 13 bilateral) with average age of 32.6 and male to female ratio of 3:1⁴; RC Siwach et al studied 100 patients with mean age of 52 of which 52 were male and 48 were female.⁵

Conclusion

32 (56.1%) patients were in lower middle class and 20 (35.1%) patients were in upper lower class followed by 5 (8.8%) patients in upper middle class in socio economic status

References

1. Varacallo M, Luo TD, Johanson NA. Total Hip Arthroplasty Techniques. 2020 Jul 8. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020
2. Kurtz SM, Röder C, Lau E, Ong K, Widmer M, Maravic M, et al. International Survey of Primary and Revision Total Hip Replacement. 56th Annual Meeting of the Orthopaedic Research Society. 2010
3. NIH consensus conference. Total hip replacement. JAMA. 1994;273:1950–1956
4. BK Dhaon, AnujJaiswal, Vishal Nigam, Vineet Jain. Non-cemented total hip replacement in various disorders of the hip. Year: 2005;39:225- 227.
5. RC Siwach, Virender Singh Kadyan, SS Sangwan, Rajiv Gupta. A retrospective study of total hip arthroplasty Year: 2007 Volume: 41 Issue: 1 Page: 62-66.