

Outcome assessment of total hip replacement post-operatively using oxford hip score

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Abstract

Background: THA is most often performed to relieve pain and restore function in patients who have extensive damage to the hip joint as a result of osteoarthritis, rheumatoid arthritis, avascular necrosis, traumatic arthritis, certain hip fractures, or benign and malignant bone tumors.³ Osteoarthritis alone accounts for 70% of elected THA cases

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

Result: Our study observed a significant improvement in OHS score with time from 6-weeks to 1-year ($P < 0.0001$) in comparison to pre-operative OHS score.

Conclusion: We studied Oxford Hip Score both pre-operatively and post-operatively in patients undergoing total hip arthroplasty at our institution who were eligible under inclusion criteria. Oxford Hip Score improved over the study duration as compared to preoperative scores.

Keywords: THA, OHS, AVN.

Introduction

THA is most often performed to relieve pain and restore function in patients who have extensive damage to the

hip joint as a result of osteoarthritis, rheumatoid arthritis, avascular necrosis, traumatic arthritis, certain hip fractures, or benign and malignant bone tumors.³ Osteoarthritis alone accounts for 70% of elected THA cases.¹

The most common indication for THA includes end-stage, symptomatic hip OA. In addition, hip ON, congenital hip disorders including hip dysplasia, and inflammatory arthritic conditions are not uncommon reasons for performing THA. Hip ON, on average, presents in the younger patient population (35 to 50 years of age) and accounts for approximately 10% of annual THAs.²

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 who have undergone Total Hip Arthroplasty (THA) over a period of 5 years at Department of Orthopedics and during the period of study duration.

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

Our study observed a significant improvement in OHS score with time from 6-weeks to 1-year ($P < 0.0001$) in comparison to pre-operative OHS score.

Table 1: Improvement in OHS as noticed during study duration (n=72)

	OHS	P value
OHS Pre-op	17.9±5.7	
OHS -2 weeks	13.2±2.6	<0.001
OHS 6-weeks	23.4±3.1	<0.001
OHS 3-months	31.4±3.9	<0.001
OHS 6 months	38.3±4.1	<0.001
OHS 1-year	42.67±3.75	<0.001

Discussion

In this study, the mean pre-operative OHS of our patients (17.9) was slightly lower than that reported by Dawson et al (44.0)⁶ and Fitzpatrick et al (44.5).⁷ Our score is derived from 57 patients. The score of Dawson et al was obtained from 220 patients and that of Fitzpatrick et al from 7151 patients. In our study, OHS improved significantly up to one year (42.67). In the study by Galea et al, the mean OHS was 39 points at 3 months, and 45 and 44 points at 1 and 2 years postoperatively, respectively.⁸ Our findings are in concordance with the above-mentioned studies.

Conclusion

We studied Oxford Hip Score both pre-operatively and post-operatively in patients undergoing total hip arthroplasty at our institution who were eligible under

inclusion criteria. Oxford Hip Score improved over the study duration as compared to preoperative scores.

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