

## Bilateral Total Hip Arthroplasty in Osteoarthritis of Both Hips: A Case Report

Dr Soudip Sinha<sup>1</sup>, Dr Soumya Ghosh<sup>2</sup>, Dr Sourav Chatterjee<sup>3</sup>,  
Dr Pradip Kumar Ghosh<sup>4</sup>, Dr Arijit Saha<sup>5</sup>

<sup>1,2,3,4,5,1</sup>Department of Orthopaedics,,Burdwan Medical College and Hospital, West Bengal University Of Health Sciences, India

Corresponding Author: Dr Soudip Sinha

**Abstract:** Osteoarthritis (OA) is a slow degenerative joint disease involving the cartilage and many of its surrounding tissues. It ultimately leads to joint failure with pain and disability, causing the greatest burden to the population as pain and stiffness in these large weight bearing joints often requires surgical intervention. Bilateral osteoarthritis of hip in a young adult is a less common disease and the following is a case report of one such patient operated upon in a tertiary health care center

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### I. Introduction

Hip osteoarthritis (OA) is among the most prevalent and disabling conditions affecting the elderly. There is an estimated 25% lifetime risk of symptomatic hip OA in people who live to age 85, and almost 10% lifetime risk of undergoing a total hip replacement for end-stage OA .Osteoarthritis is the most common indication for total hip arthroplasty. The following patient underwent a bilateral THR as he did not respond to conservative therapy.

### II. Materials And Methods

A 40 year old male presented with bilateral hip pain (Right>Left) for 3years in the Orthopaedic OPD. He was previously being treated with analgesic and physiotherapy. On clinical examination and radiological investigation he was diagnosed to be suffering from bilateral osteoarthritis of the hip joints. In the radiographs, Osteophytes were observed with gross deformation of both acetabulum. Bilateral THA was planned after failure of a further 1 year of conservative treatment. After routine investigations and pre anaesthetic check-up patient was posted for Right sided THA, to be eventually followed by left sided THA. Preoperative templating was done on 100% x ray films. Under epidural anaesthesia, patient was placed in left lateral position, and right sided THA was done by Modified Hardinge approach. Tensor fascia lata was split in the line of femur. Anterior fibres of vastus medialis and lateralis muscles and gluteus minimus was split to gain access to the hip joint capsule. Capsular incision was given, hip dislocated and acetabular exposure was done. Femur was resected up to the neck. After reaming 48 size acetabular cup is inserted and two 26mm acetabular screws, at 2o clock and 11o clock were inserted along with 48 sized liner. After entering the femoral medullary canal with the canal finder, the rasp was used to prepare it. Proper sized femoral stem and head components were inserted after required trials. The procedure was cementless. Wound was closed in layers and a suction drain was put in situ. Post-operative period was uneventful.

From day 1. In the immediate postoperative period the hip was positioned in approximately 15 degree of abduction while recovering from anaesthesia and patient was advised for ankle n toe movement to prevent DVT. Gait training begun on the next day. Isometric muscle strengthening exercises were advised. From 3rd postoperative day, patient was advised to ambulate with a walker. Limited weight bearing was advised for 6-8 weeks: with a walker for 2 weeks followed by walking stick for 6 weeks .The patient was discharged after he was able to get up from his bed independently and walk on a level surface. After a 3 month follow up, left side THA was done by the same approach. Post-operative protocol followed was similar to that of the right side THA. However during the second procedure, the post-operative hospital stay was prolonged by 1 day. Patient is currently under follow up in the outdoor department.

### III. Discussion

Current non pharmacological conservative management consists of Rehabilitation, including patient education, weight management, land- and water-based exercise, physiotherapy and strength training. Pharmacological treatments include those administered topically, orally, and by intra-articular injection. Some

treatments aim to relieve symptoms alone, whereas others, disease-modifying osteoarthritis drugs (DMOADs), attempt to alter the course of disease.

Annually over 1 million people undergo THR, 0.9 million of whom suffer from end stage OA. It is a highly cost-effective procedure for people with hip OA not responding to conservative management approach. The 1994 National Institutes of Health Consensus Statement on Total Hip Replacement concluded that “THR [total hip replacement] is an option for nearly all patients with diseases of the hip that cause chronic discomfort and significant functional impairment.” The major indication of a bilateral THR is a medically fit patient with bilateral severe involvement with stiffness or fixed flexion deformity because rehabilitation may be difficult if surgery is done on one side only. Studies have shown that it is better to undergo an early procedure than to delay till the condition worsens. Once the hip displays Tonnis grade 2 changes of osteoarthritis, hip preservation surgery provides little benefit. The primary treatment for significant osteoarthritis of the hip is total hip arthroplasty. Pain in the presence of a degenerative or destructive process in the hip joint as evidenced on imaging studies is the primary indication for surgery. Total hip replacement is an option for nearly all patients with diseases of the hip that cause chronic discomfort and significant functional impairment.

#### **IV. Results**

Our patient has shown excellent results after a follow up period of over 1 year for both hips. He can now walk without support, sit on the edge of the bed with legs dangling, visit the bathroom and use european style commode without assistance. He can sit with either ankle on the opposite knee and perform personal nail care. He can climb up the stairs while gently holding onto the railings. Physiotherapy for muscle strengthening is ongoing.

#### **V. Conclusion**

The operative results of this case show that bilateral THR can be a good option, and needs further exploring for young patients with debilitating bilateral OA of hip joints that result in gross limitation of daily activities.

#### **VI. Clinical Photos**



**A. Preoperative X Ray**



**B. Post Operative (Right)**



**C. Post Operative (Bilateral)**



**D. Follow up**



**E. Follow up**



**F. Follow up**

### References

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