Available online at www.sciencedirect.com
ScienceDirect
journal homepage: www.elsevier.com/locate/mjafi

Short Communication

Hip arthroscopy: Minimally invasive surgery for hip pathologies

Lt Col Munish Sood [a,*], *Col Amresh Ghai* [b]

[a] *Classified Specialist (Orthopaedics), Command Hospital (Western Command), Chandimandir 134107, India*
[b] *Classified Specialist & Head of Department (Orthopaedics), Base Hospital, Delhi Cantt 110010, India*

ARTICLE INFO

Article history:
Received 23 April 2016
Accepted 8 September 2016
Available online xxx

Keywords:
Hip joint
Arthroscopic surgery
Portals
Complications

ABSTRACT

Arthroscopy is considered as one of the revolutionary techniques in the management of musculoskeletal disorders. Hip arthroscopy is a new emerging technique for the management of hip pathologies and it has gained popularity in the past decade. In the present case series, 5 patients with hip pathologies were operated using hip arthroscopy technique and the functional outcome and complications associated with hip arthroscopy were assessed. Harris hip score improved significantly at the latest follow-up. No major complication was noticed in our case series. In conclusion, hip arthroscopy procedure requires good instrumentation and expertise. We believe that it is a safe and less invasive procedure providing an additional tool in the management of hip pathologies.

Introduction

Arthroscopic surgery is considered as one of the most minimally invasive surgical procedures. It is regarded as one of the major breakthroughs in the management of patients with conditions affecting the musculoskeletal system.

Hip arthroscopic surgery was introduced for the first time by Burman in 1931.[1] However, indications and procedures for arthroscopic surgeries remained very few for many decades because of lack of expertise and instrumentation. Since the early 1990s, the number of hip arthroscopic surgeries being performed has increased worldwide. Hip arthroscopy was introduced in India in the past decade only and still there are very few centres in India that perform arthroscopic management of hip pathologies. Ours is one of the very few centres in the armed forces where these kinds of surgeries have been performed in the past five years.

We present here a case series of 5 patients who were managed with hip arthroscopy at our centre.

Material and method

A prospective study was carried out from 01 January 2014 to 30 December 2015 in a tertiary care orthopaedics centre. A total of five patients who were having hip pathology and were being managed using hip arthroscopy were included in this study. The average age of the patients was 38.5 years. All patients were male. All the patients who presented with hip pain were initially evaluated at our centre for hip pathology. The clinical features included hip pain, limp, painful ambulation, clicking

* *Corresponding author.*
E-mail address: soodmunishafmc@gmail.com (M. Sood).
http://dx.doi.org/10.1016/j.mjafi.2016.09.005

Please cite this article in press as: Sood M, Ghai A. Hip arthroscopy: Minimally invasive surgery for hip pathologies, *Med J Armed Forces India*. (2016), http://dx.doi.org/10.1016/j.mjafi.2016.09.005

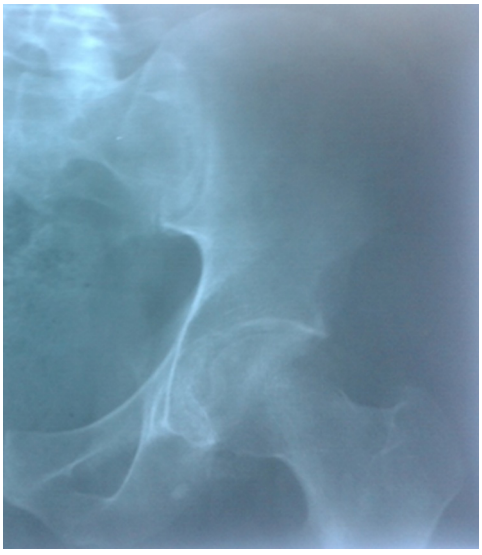

Fig. 1 – Plain radiograph revealing radiopaque lesion in the acetabular fossa in the left hip joint.

or locking sensation on rotation of the hip. All the patients were examined in supine and standing position and pain on rotation of hip was elicited. Patients were further evaluated radiologically with radiograph of hip and pelvis, computed tomography (CT) scan or magnetic resonance imaging (Figs. 1 and 2). The various indications for which hip arthroscopy was performed are listed in Table 1.

Hip arthroscopic procedure

Hip arthroscopy was performed under spinal anaesthesia and patients were placed in the supine position. The patient was placed on a fracture table and traction using padded foot and boot was applied to the operative leg. The hip joint was distracted to increase the joint space by 1–2 cm. The standard lateral, anterior and accessory anterior portals were made in all the cases under C-arm image intensifier (Figs. 3 and 4). In two patients, posterolateral portal was made for better visualisation and removal of loose bodies from the hip joint. All the important landmarks including the bony landmark and neurovascular bundle were identified by palpation and marked to reduce the possibility of damage to the neurovascular and other important structures. Hip joint and various pathologies were assessed using the arthroscope; a 70° arthroscope was mainly used in the lateral portal while the instruments such as the probe, grasper, shaver and electrothermal device were inserted via the anterior portal. The operative time, functional outcome and postoperative complication were assessed.

Table 1 – Indications for which hip arthroscopy was performed.

Synovial chondromatosis and loose bodies removal	03
Femoro-acetabular impingement	01
Synovial biopsy	01

Results

A total of 5 patients (Table 2) with hip pathology were operated using hip arthroscopy technique at this tertiary orthopaedics centre. All patients were male with average age of 38.5 years (range, 27–51 years). Patients were followed-up for an average period of 16.8 months (range, 08–24 months). The average surgical time was 80 min (range, 40–190 min). Totally, three portals were used during all surgeries (anterior, accessory anterior and lateral), and in two cases, posterolateral portal was also made. In patients with synovial chondromatosis, removal of intra-articular loose bodies and partial synovectomy was done (Fig. 5), whereas in the patient with femoro-acetabular impingement, resection of the prominent portion of head–neck junction of femur was done. In one patient, biopsy was carried out; he was diagnosed as a case of

Fig. 2 – MRI and CT scan shows clusters of intra-articular ossified loose bodies filling the hip joint.

Please cite this article in press as: Sood M, Ghai A. Hip arthroscopy: Minimally invasive surgery for hip pathologies, *Med J Armed Forces India*. (2016), http://dx.doi.org/10.1016/j.mjafi.2016.09.005