

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/jor

Original Article

Surgical dislocation of the hip for excision of benign tumours



Aamer Nisar*, Sudhesh Gulhane, Ashish Mahendra,
Robert Marshall Dominic Meek, Sanjeev Patil

Southern General Hospital, Govan Road, Glasgow G51 4FT, Scotland, United Kingdom

ARTICLE INFO

Article history:

Received 5 August 2013

Accepted 24 December 2013

Available online 24 January 2014

Keywords:

Surgical dislocation

Hip

Benign tumours

Ganz

ABSTRACT

Aim: Surgical dislocation of hip is used to treat a variety of hip conditions. We report our experience of the approach in excision of benign tumours of the hip.

Methods: This is a review of the cases presenting with benign tumours to a tertiary care complex hip clinic. Data was collected prospectively. All patients were radiologically investigated before surgery for anatomical detail. Surgical dislocation was carried out by the senior surgeon in all cases. Non-Arthritic Young Hip Scores were done preoperatively and at 12 months. All patients are under annual follow-up.

Results: There were 9 cases of benign tumours in this series including Pigmented Villonodular Synovitis (2), synovial chondromatosis (2), fibrous dysplasia (2), osteochondroma (2) and chondroblastoma (1). No recurrences, trochanteric nonunion or avascular necrosis have been seen up to a minimum of 18 months follow-up. Non-arthritic Young Hip scores improved from a mean of 45 to 89 at 12 months.

Conclusion: Surgical dislocation of the hip is a useful approach for removal of benign tumours of the hip joint.

Copyright © 2014, Professor P K Surendran Memorial Education Foundation. Publishing Services by Reed Elsevier India Pvt. Ltd. All rights reserved.

1. Introduction

Surgical dislocation of the hip was first described in 2001 by Ganz et al.¹ The approach was a result of an extensive anatomical research on the blood supply to the femoral head.² The medial circumflex femoral artery, which is the main blood supply, is protected by an intact obturator externus muscle. A trochanteric flip allows anterior exposure of the capsule, and a controlled anterior dislocation of the hip is carried out. This allows a gap of up to 11 cm between the head and the acetabulum, giving a view of the femoral head of about 360° and a full 360° view of the acetabulum.¹ A number of hip conditions have been treated with this approach like

femoroacetabular impingement, various paediatric hip diseases and benign tumours around the hip like intraarticular exostosis, synovial chondromatosis and aneurysmal bone cysts.^{1,3–6} In their original series, Ganz et al utilized this approach for PVNS, synovial chondromatosis and cartilage exostosis.¹ We present our experience of this approach in which multiple benign tumours were excised through surgical dislocation of the hip joint.

2. Patients and methods

This is a retrospective review of patients with symptomatic benign tumours of the hip that presented to our complex

* Corresponding author. 11 Garden Walk, Rotherham, South Yorkshire S60 3HY, United Kingdom. Tel.: +44 1709530090.

E-mail address: aamn@aol.co.uk (A. Nisar).

hip clinic in a tertiary care hospital. A detailed history was taken and clinical examination including hip range of motion and impingement test⁷ were carried out. Anteroposterior pelvic radiographs with lateral of the hip were carried out for all patients. Further investigations included magnetic resonance imaging (MRI) in all patients, whereas computed tomography (CT) scans with 3D reconstruction were carried out in selected cases to study detailed anatomy, pattern of joint and bone involvement. Following clinical and radiographic diagnosis all cases were discussed with multidisciplinary team for appropriate management plan.

Patients were consented for surgical dislocation of the hip and excision of the tumours. The procedures were performed by the senior author (SP) along with tumour surgeon (AM). Ganz trochanteric slide approach with anterior surgical dislocation was carried out in all patients as described in the literature.¹ Blood supply to the femoral head was identified in all cases and protected throughout the procedure. Complete excision of tumours was carried in all cases. Additional procedures were carried out in 3 cases; 2 osteochondroplasties and 1 labral debridement. Samples were sent for histology in all cases for confirmation of diagnosis. Three patients required prophylactic insertion of compression hip screw due to extensive cavity formation in the femoral neck following tumour excision. Patients were mobilized partial weight-bearing for 6 weeks. All patients were followed-up in clinic at 6 and 12 weeks and 6 monthly. All patients had non-arthritis young hip scores done preoperatively and then at 12 months postoperatively.⁸ Student T Test was used to compare pre and postoperative non-arthritis young hip scores. P value <0.05 was considered to be significant.

3. Results

Nine patients ($n = 9$) diagnosed with symptomatic benign tumours of the hip joint were included in the study. There were

4 male and 5 female patients with a mean age of 35 years (range 22–43 years). None of the patients have been lost to follow up. No recurrences have been seen in any cases up to a minimum of 18 months follow-up (range 18–48 months). No cases of avascular necrosis have been seen. Four patients have required removal of metalwork due to greater trochanteric bursitis caused by prominent screws. Non-arthritis Young Hip Scores showed significant improvement from a mean of 45 preoperatively to 89 at 12 months ($p < 0.001$, T Test). **Table 1** gives the demographics, clinical presentation, diagnoses and outcome scores of the patients. For the purpose of simplicity further description is given under individual cases.

3.1. Case 1

A 16-year-old college student presented with groin and medial thigh pain of over 12 months duration. Clinical examination revealed no limitation in hip movements and negative impingement test. Radiographs showed a well-defined lytic lesion in the femoral head and neck (**Fig. 1a**). CT scan showed the anterior cortex had been breached (**Fig. 1b**). MRI confirmed a well-circumscribed lesion with no local invasion (**Fig. 1c**). Surgical dislocation was used and the lesion was curetted completely. The void was filled with morcellized freeze-dried femoral head allograft. A prophylactic compression hip screw was inserted due to cortical breach in the neck. Histology confirmed the lesion to be chondroblastoma. Final radiographs show a well-healed lesion after 36 months of follow-up (**Fig. 1d**).

3.2. Case 2

A 23-year-old female had a history of rest/night hip pain. Hip movements were limited due to pain and radiographs were unremarkable (**Fig. 2a**). MRI scan showed mild cam lesion with small “apple core lesions” in the femoral neck (**Fig. 2b**). She underwent open osteochondroplasty and complete synovectomy. The lesions were found very close to the posterior

Table 1 – Clinical details of the patients.

Cases	Age/Gender	Diagnosis	Clinical presentation	Preop YHS ^a	Postop YHS ^a	Follow-up (months)
1	16/M	Chondroblastoma	Groin pain radiating to medial thigh, full ROM.	44	90	36
2	23/F	^b PVNS	Hip pain, limited ROM ^c	36	85	24
3	31/F	^b PVNS	Hip pain, limited ROM	53	88	36
4	41/M	Synovial chondromatosis	Hip pain, ^d FADIR +ve	35	86	34
5	43/F	Synovial chondromatosis	Hip pain, ^d FADIR +ve	52	88	12
6	18/F	Osteochondroma	Groin and thigh pain, limited ROM	60	100	48
7	29/M	Osteochondroma	Groin pain, full ROM	39	97	36
8	19/F	Fibrous dysplasia	Nonspecific groin pain, full ROM	43	85	18
9	25/M	Fibrous dysplasia	Hip pain, limited ROM	49	83	28

^a YHS: Non-arthritis Young Hip Score.⁸

^b PVNS: Pigmented Villonodular Synovitis.

^c ROM: Range of Motion.

^d FADIR: Flexion, Adduction, Internal Rotation Test (Impingement test).

Download English Version:

<https://daneshyari.com/en/article/3251923>

Download Persian Version:

<https://daneshyari.com/article/3251923>

[Daneshyari.com](https://daneshyari.com)