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Case Report

Arthroscopic excision of subacromial osteochondroma causing impingement of shoulder in a patient with diaphyseal achalasia

Simon Thomas DNB (Ortho)^{a,*}, Shekhar Srivastav MS (Ortho)^b,
Shekhar Agarwal MS (Ortho), Mch^c, Harjoban Singh D'Ortho, DNB (Ortho)^d,
Sarang Shete MBBS, DNB^e, Mohit Bhargav MD (Radiodiagnosis)^f

^a Consultant Ortho, Sant Parmanand Hospital, 18, Sham Nath Marg, Civil Lines, Delhi 110054, India

^b Senior Consultant Ortho, Sant Parmanand Hospital, 18, Sham Nath Marg, Civil Lines, Delhi 110054, India

^c Head of Department Ortho, Sant Parmanand Hospital, 18, Sham Nath Marg, Civil Lines, Delhi 110054, India

^d Clinical Fellow Ortho, Sant Parmanand Hospital, 18, Sham Nath Marg, Civil Lines, Delhi 110054, India

^e Trainee Ortho, Sant Parmanand Hospital, 18, Sham Nath Marg, Civil Lines, Delhi 110054, India

^f Consultant Radiology, Sant Parmanand Hospital, 18, Sham Nath Marg, Civil Lines, Delhi 110054, India

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1. Introduction

Impingement syndrome of the shoulder may arise from a multitude of causes. Majority of them are from intrinsic causes in the tendon itself due to degenerative and vascular causes.¹ Some patients also have extrinsic impression due to anomalies in coracoacromial arch like a type III acromion.

This case demonstrates an unusual cause of impingement due to a sessile osteochondroma arising from undersurface of the acromion in a patient with multiple osteochondromatosis. This condition is also known as diaphyseal achalasia.

2. Case report

A 34 year old man presented with pain and difficulty in moving right shoulder for 1 year. Patient had multiple lumps and bumps in upper and lower extremities. The patient remembered to have these bumps from childhood. He does not remember any of them to be increasing in size in the last few years. He had no history of trauma or constitutional symptoms.

On examination, both shoulders appeared stooped forwards with no visible swelling on the shoulder. Right

* Corresponding author. G4/49 Sector-16, Rohini, Delhi 110089, India.

E-mail address: simon_rac@yahoo.com (S. Thomas).

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Fig. 1 – X-ray shoulder AP view showing the osteochondroma projecting into subacromial space.

shoulder flexion and abduction was restricted to 90°. Attempted passive motion of shoulder more than 90° was painful to the patient. There was no local tenderness. The general examination of the patient revealed multiple bony swellings in bilateral lower thigh, right proximal tibia, and right lower humerus. There were no mechanical symptoms related to the swellings in any of these areas. The patient also had bowing of the ipsilateral radius and restricted pronation and supination of forearm which were not contributing to problem at the shoulder.

Plain radiograph showed a bony projection just below the acromion around 1 × 0.5 cm in size (Fig. 1). The projection appeared to be in continuity with the acromion with no apparent periosteal reaction. Patient also had a sessile osteochondroma arising from proximal humerus but it was not causing any symptoms.

MRI showed the impingement of osteochondroma on the supraspinatus muscle causing attrition of the tendon (Fig. 2). The rotator cuff was intact and there was no tear in the

Fig. 2 – MRI right shoulder showing impingement of the shoulder with intact supraspinatus muscle.

Fig. 3 – Arthroscopic view of the osteochondroma.

tendon. There was no evidence of any malignant changes within the osteochondroma. The patient was posted for surgery to relieve symptoms of impingement.

We planned arthroscopic shaving of the osteochondroma as subacromial area could be better approached with minimal disruption of the soft tissue structures around the shoulder joint.

After GA, patient was placed in right lateral position, traction was applied to right upper limb. Posterior and lateral portals were made. The joint was distended with irrigation fluid and the osteochondroma visualized (Fig. 3). The bursa overlying the osteochondroma was removed by radio frequency probe. The osteochondroma was shaved off by using an arthroscopic burr.

The subacromial space was thoroughly irrigated and wound closed with staple.

Patient was started on passive mobilization of the shoulder from the next day. Post-operative period was uneventful. At two weeks patient had passive range of abduction up to 90° (Fig. 4). At three months the passive and active abduction was

Fig. 4 – Arthroscopic view after shaving with burr.

Fig. 5 – Posterior and lateral portal used to gain access to subacromial space.

110°. All the rest of the movements were comparable to the opposite side. At 1 year follow up the patient is asymptomatic and has no recurrence of mechanical symptoms (Fig. 5).

3. Discussion

Osteochondroma is the most common primary neoplasm of scapula.² They usually arise from scapular blade and cause very little mechanical symptoms. Occasionally scapular tumours may arise from acromion causing subacromial impingement.³ Surgical excision of osteochondroma is usually planned only when the swelling shows increase in size, impingement of adjacent structures, pain,⁴ and for cosmetic purposes.

Arthroscopic excision of subacromial tumour has got multiple advantages.⁵ The main advantage is the ready access to the subacromial space with minimal trauma to the surrounding muscles and joint capsule. The arthroscopic shaving of the tumours helped in complete removal and facilitated early mobilization and physiotherapy.

Conflicts of interest

No benefits in any form have been received or will be received from a commercial party related directly or indirectly to the subject of this article.

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