



E-ISSN: 2707-8353
P-ISSN: 2707-8345
Impact Factor (RJIF): 6.09
IJCRO 2025; 7(2): 138-140
www.orthocasereports.com
Received: 02-6-2025
Accepted: 05-07-2025

Dr. Yash Shekhar Jadhav
Rajiv Gandhi Medical College
and Chhatrapati Shivaji
Maharaj Hospital, Thane,
Maharashtra, India

Dr. Arvind Rathod
Senior Resident Department of
Orthopaedics, LTMMC and
Sion Hospital Mumbai,
Maharashtra, India

Corresponding Author:
Dr. Yash Shekhar Jadhav
Rajiv Gandhi Medical College
and Chhatrapati Shivaji
Maharaj Hospital, Thane,
Maharashtra, India

En masse excision of right scapular angle exostosis in a 7-year-old male: A case report

Yash Shekhar Jadhav and Arvind Rathod

DOI: <https://www.doi.org/10.22271/27078345.2025.v7.i2c.274>

Abstract

Introduction: Osteochondroma is the most common benign bone tumour; scapular angle involvement is rare. We describe a case in a child where CT imaging confirmed diagnosis and en masse excision was performed.

Case Presentation: A 7-year-old male presented with a year's history of swelling over the inferior angle of the right scapula, resulting in cosmetic prominence and restricted shoulder elevation. Clinical exam found a hard, non-tender mass; radiographs showed a pedunculated bony lesion; CT scan confirmed its extent and anatomical relations. The lesion was excised en masse, including the cartilaginous cap. Histopathology confirmed osteochondroma without malignant changes.

Conclusion: Complete surgical excision of scapular exostosis, when confirmed by imaging including CT, yields excellent functional and cosmetic outcomes in pediatric patients. Early diagnosis and thorough imaging are important to plan safe excision and avoid recurrence.

Keywords: Osteochondroma, scapula, exostosis, pediatric orthopaedics, surgical excision

Introduction

Osteochondroma (exostosis) is the most common benign bone tumor, accounting for 20-50% of benign bone tumors. It usually arises in the metaphysis of long bones such as the femur, tibia, and humerus. Scapular involvement is rare, representing only 3-5% of cases. Inferior angle scapular osteochondromas may cause mechanical symptoms including snapping scapula, pseudowinging, or restricted range of motion. Imaging plays a crucial role in diagnosis and surgical planning.

We present a case of a young child with a right scapular angle osteochondroma confirmed by CT scan and treated successfully by en masse excision.

Case Presentation

A 7-year-old male presented with a progressively enlarging swelling over the posterior aspect of the right scapula, noticed by parents over the past year.

Clinical Examination

- Hard, non-tender bony swelling at the inferior angle of the right scapula.
- Mild asymmetry of the posterior chest wall.
- Pain and mechanical restriction during overhead activities.
- No neurovascular compromise.

Investigations

Plain radiographs showed a well-defined pedunculated bony lesion arising from the inferior angle of the scapula, consistent with an exostosis. A CT scan was performed to confirm the diagnosis and delineate the extent of the lesion.

Treatment

The patient underwent en masse excision of the lesion via a posterior approach. The mass was completely removed with its cartilaginous cap.

Histopathology

Confirmed the diagnosis of osteochondroma with no malignant features.

Outcome

- Postoperative recovery was uneventful.
- At 6 months follow-up, the child had full, painless shoulder motion and no recurrence.
- Cosmetic deformity was corrected.

Discussion

Osteochondromas of the scapula are rare and often asymptomatic. When symptomatic, they may cause pain, snapping scapula syndrome, mechanical restriction of movements, and cosmetic deformities.

CT scan is particularly useful in assessing the exact location, size, and relation of the lesion to surrounding structures, thereby aiding surgical planning.

En masse excision is the treatment of choice for symptomatic lesions and yields excellent functional outcomes. Recurrence is uncommon if complete resection, including the cartilaginous cap, is performed. Malignant transformation is extremely rare in pediatric solitary lesions. This case emphasizes the importance of early recognition and timely surgical management of symptomatic scapular osteochondromas in children.



Image 1: Preoperative Xray



Images 2 & 3: Preoperative clinical picture



Image 4 & 5: Intraoperative picture

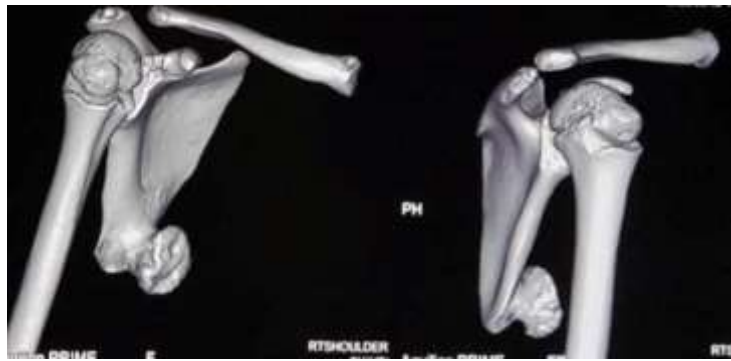


Image 6: Preoperative CT Scan



Image 7: Postoperative xray

Conclusion

Scapular osteochondromas, though rare, should be considered in the differential diagnosis of posterior chest wall swellings in children. CT scan confirmation and en masse excision offer excellent outcomes, restoring function and preventing recurrence.

Declarations

Consent for publication: The patient's legal guardians provided informed consent for publication of this case and accompanying images.

Conflict of interest: None declared.

Funding: None.

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How to Cite This Article

Jadhav YS. En masse excision of right scapular angle exostosis in a 7-year-old male: A case report. *International Journal of Case Reports in Orthopaedics*. 2025; 7(2): 138-140.

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