Case Report | Journal of Orthopaedic Case Reports 2026 July:16(7):Page 134-137

Posterior Scapular Osteochondroma in a Pediatric Patient: An Uncommon Presentation of a Common Benign Tumor

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Learning Point of the Article:

Early recognition and surgical excision of posterior scapular osteochondroma in children prevent functional impairment and potential malignant transformation.

Abstract

Introduction: Osteochondroma is the most common benign bone tumor, usually arising from long bones. Scapular involvement is uncommon, and posterior surface presentation is particularly rare. Such lesions may lead to pain, cosmetic deformity, disturbance of scapulothoracic mechanics, and have a relatively higher risk of malignant transformation.

Case Report: A 6-year-old boy presented with a progressively enlarging bony swelling over the posterior aspect of the left scapula associated with recent-onset pain and restriction of shoulder movements. Radiographs revealed a well-defined exophytic lesion with cortical and medullary continuity and a thin cartilage cap. Complete surgical excision was performed, and histopathology confirmed osteochondroma. Post-operative recovery was uneventful with symptomatic improvement.

Conclusion: Posterior scapular osteochondroma in children is rare but clinically relevant. Early diagnosis and timely surgical excision of symptomatic lesions result in excellent outcomes.

Keywords: Osteochondroma, scapula, pediatric, posterior scapula, exostosis.

Introduction

Osteochondroma is a cartilage-capped bony projection arising from the external surface of bone and accounts for approximately 20–50% of all benign bone tumors [1,2,3]. Scapular osteochondromas represent a small proportion of shoulder girdle tumors [1,4]. Most lesions arise from the anterior surface and present earlier due to scapulothoracic impingement or snapping scapula syndrome [4,5].

Case Report

A 6-year-old male child presented with a swelling over the left upper back, first noticed at 6 months of age. The swelling gradually increased in size over the past year, with recent pain and restriction of shoulder movements.

Clinical examination

A solitary, well-defined bony swelling measuring 9 × 6 × 4 cm was noted over the medial aspect of the spine of the left scapula (Fig. 1). It was non-tender, bony hard, and moved with scapular movements.

Radiological findings

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Author's Photo Gallery


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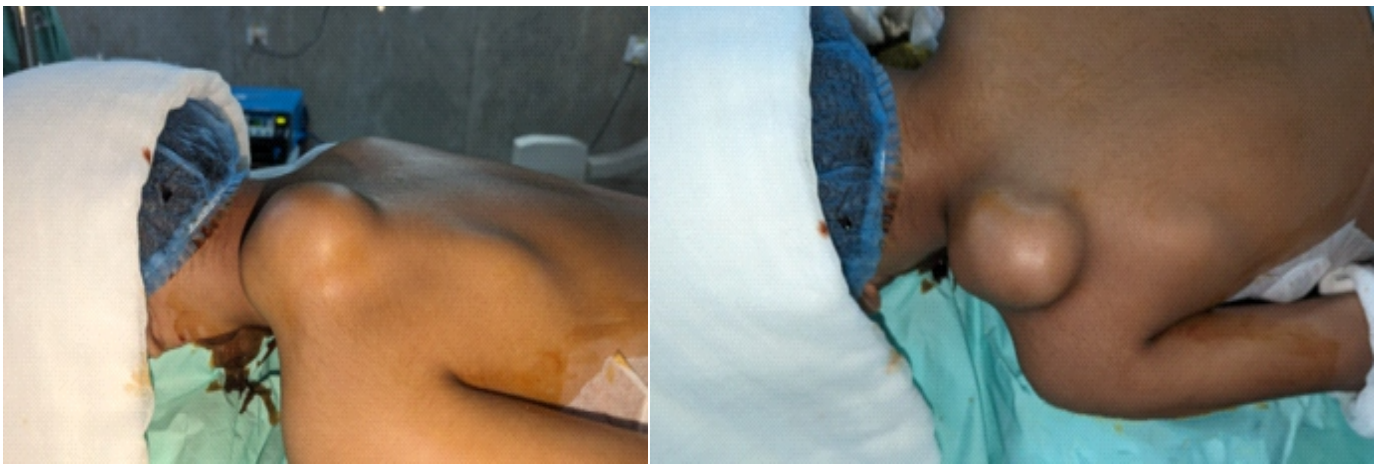

Figure 1: Clinical photograph showing swelling over the posterior aspect of the left scapula.

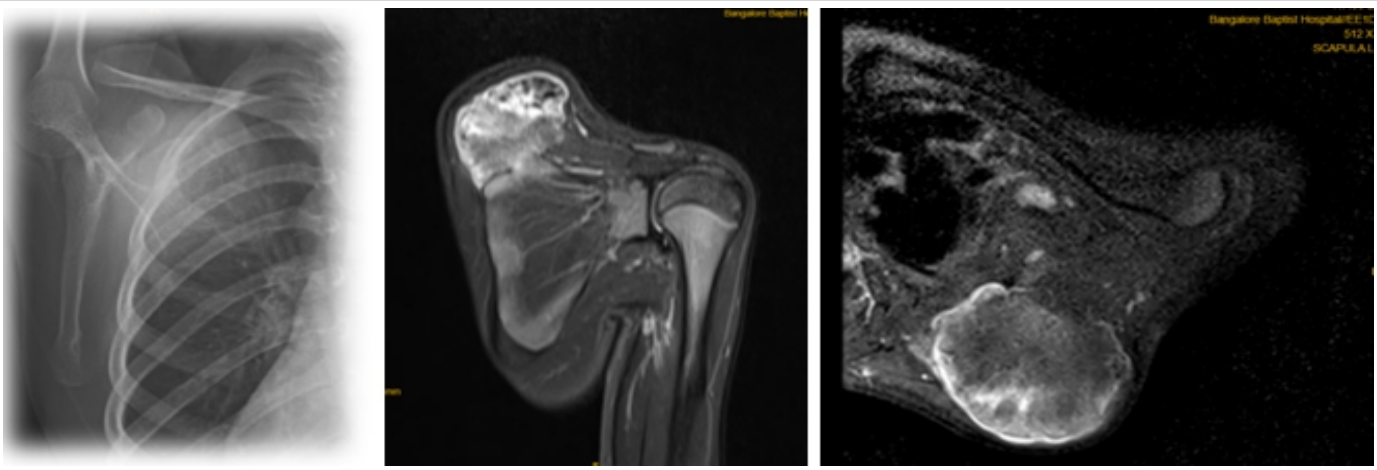

Figure 2: Preoperative radiograph showing an exophytic lesion with cortical continuity.

Plain radiographs showed a well-defined exophytic lesion with cortical and medullary continuity and a thin cartilage cap measuring 2.5 mm.

Magnetic resonance imaging revealed a well-defined heterointense exophytic lesion arising from the posterior margin of the left scapula at the junction of the body and spine, with no evidence of infiltration and a thin cartilage cap measuring approximately 2.5 mm (Fig. 2).

Surgical management

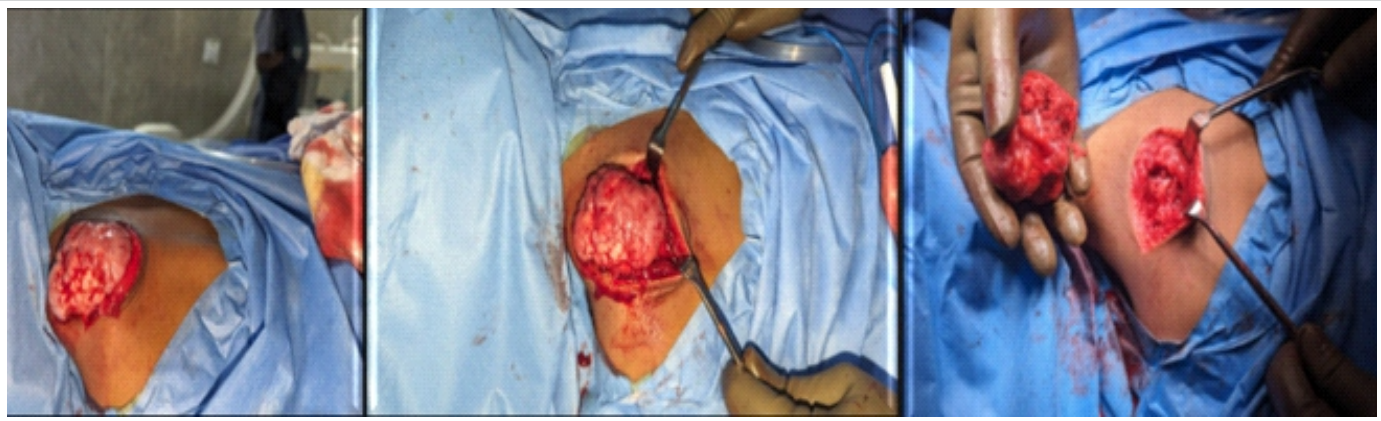

Figure 3: Intraoperative image showing excised mass.

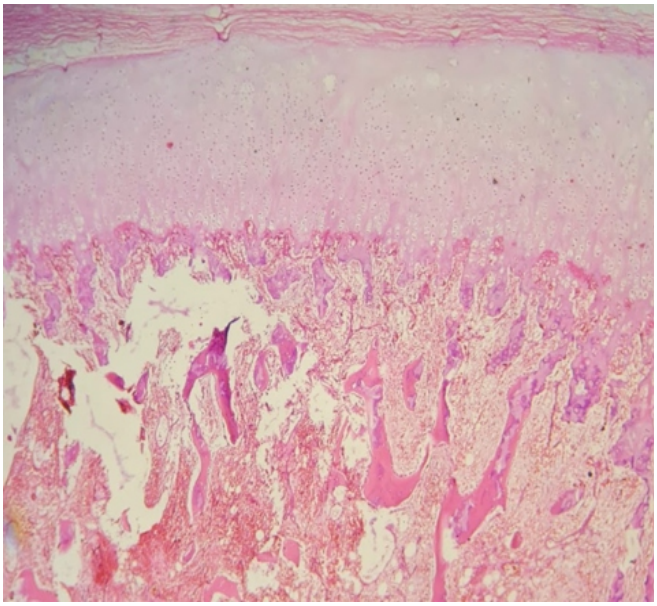

Figure 4: Histopathological image showing cartilage cap and trabecular bone.

Complete excision was performed through a posterior approach. Post-operative radiographs confirmed complete removal (Fig. 3).

Histopathology

Sections showed mature hyaline cartilage cap with endochondral ossification and underlying trabecular bone (Fig. 4). No malignant features were noted.

Discussion

Scapular osteochondromas are clinically significant as they may disrupt scapulothoracic rhythm [2,5]. Flat bones such as the scapula have a relatively higher risk of malignant transformation [6]. The risk of malignant transformation, although low, has been well documented in literature [7,8]. Surgical excision is recommended for symptomatic lesions with good functional outcomes [9,10].

Conclusion

Posterior scapular osteochondroma in pediatric patients is rare. Awareness and timely surgical management lead to excellent outcomes.

Clinical Message

Posterior scapular osteochondroma should be considered in children presenting with dorsal scapular swellings.

Declaration of patient consent: The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given the consent for his/ her images and other clinical information to be reported in the journal. The patient understands that his/ her names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Conflict of interest: Nil **Source of support:** None

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