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Surgical treatment of rare case of scapula osteochondroma: A case report

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Abstract
A 05-year-old male presented with abnormal fullness and swelling over the right scapula, with progressive right shoulder pain since 1 year. Limited overhead activities with the right shoulder. X-ray and CT scan: S/o approximately 4.8 (AP)X3.5(T)X5.39CC sized sessile cauliflower-like bone outgrowths with few osteolytic areas with fine trabeculation. Surgical Procedure: An extraperiosteal excisional biopsy was performed. Histopathologic examination revealed mature hyaline cartilage with perichondrium, suggestive of osteochondroma. Clinically and radiologically, no recurrence was detected at 1-year follow-up. Surgical removal of symptomatic osteochondroma of the scapula may result in a good clinical outcome.

Keywords: Scapula osteochondroma, surgical treatment

Introduction
Osteochondromas or exostosis are the most common (35-46%) benign tumours of bone [1, 2] (M:F=1.5:1) [5]. Approximately 90% are solitary exostosis that can occur on any bone but are usually found on the metaphysis of long bones (proximal tibia > Distal distal femur > proximal humerus). A small percentage also arise on the axial skeleton and other flat bones, including the skull and facial bones. (Scapula 4%, pelvis 5%, and spine 2%) [8]. These tumours are usually asymptomatic and discovered incidentally. Patients usually present for either cosmetic reasons or growth-related complications, such as pain from mechanical pressure, fracture of the bony pedicle, neurovascular impingement, bursa formation, and rarely malignant transformation of the cartilage cap. The literature on the surgical technique of excision of symptomatic exostosis of the scapula is limited.

Case report
- 05 years/male with abnormal fullness and swelling over the right scapula.
- Progressive right shoulder pain for 1 year
- Limited overhead activities with right shoulder.
- Difficulty lying flat, causing sleep disturbance in supine position.

Fig 1: Localized swelling over right scapula

Clinical examination

- Protrusion and asymmetry of the right scapula.
- Pseudo winging of the right scapula
- Smooth but lobulated bone mass approximately 5 cm x 4 cm over the superior border of the scapula, moving synchronously with shoulder movements.

X-ray and CT scan: S/o approximately 4.8 (AP)X3.5(T)X5.39CC sized sessile cauliflower shape bony outgrowth with few osteolytic areas with fine trabeculation within noted arising from superior angle of right scapula showing continuation with cortex and medulla of right scapula.

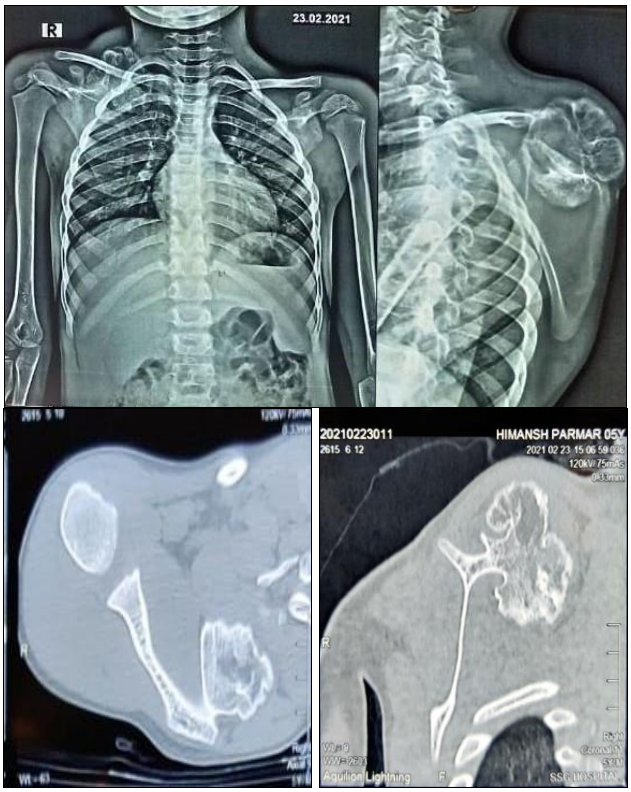

Fig 2: Pre-operative X-ray and CT scan

Surgical procedure: extraperiosteal excisional biopsy using transverse incision along the spinous process in lateral position under general anaesthesia.

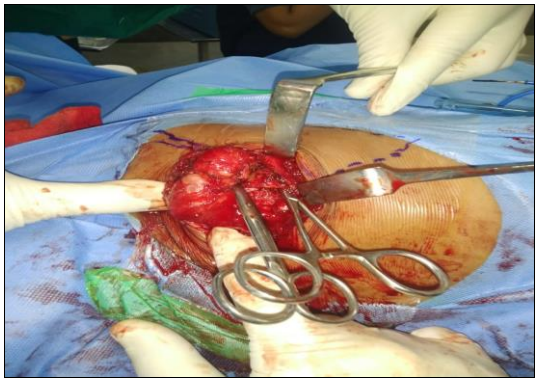

Fig 3: Intra-operative exposure of exostosis

The specimens measured 5x6x3 cm of one piece and 2x2x1 cm of another one.

Fig 4: Exostosis once resected

Histopathological Examination

Mature hyaline cartilage with perichondrium s/o Osteochondroma.

Follow-up: No recurrence clinically and radiologically at 1 year of follow-up

Fig 4: At one year of follow up with full range of motion

Discussion

The diagnosis of osteochondroma of the scapula should be considered in patients 5 to 20 years of age who present with pseudoscapular sway, swelling on the scapula, and crepitus. Pain is generally rare and is caused by pressure on the surrounding soft tissue, underlying bursitis, fracture of the pedicle due to trauma, or, rarely, malignant transformation [6]. Osteochondroma of the scapula usually develops on the ventral surface, [7] resulting in pseudowinging of scapula. Rapid increase in size or late recurrence after excision may indicate malignant transformation. Complete extraperiosteal excision is necessary to reduce the likelihood of recurrence. Surgical excision of symptomatic osteochondromas of the scapula may result in a good clinical outcome.

Conflict of Interest

Not available

Financial Support

Not available

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