

## Surgical Treatment of Synovial Chondromatosis of the Long Biceps Tendon Sheath: A Case Report

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**Objectives:** Primary synovial chondromatosis (PSC) is a rare benign neoplasm that affects diarthrodial joints. The reported cases of PSC in the literature are mostly localized in the knee, followed by the hip, elbow, wrist and shoulder. We report the surgical treatment of a rare case of PSC localized in the long biceps tendon sheath.

**Methods:** A 66-year-old woman presented severe pain in her left shoulder without any traumatic event. The pain was rated on Visual analog scale (VAS) as 4 to 7. At the physical examination, a palpable mass was found medial to the bicipital groove of the left shoulder. Functional examination of the left shoulder revealed painful limitation at 150 abduction, at 130 forward elevation and at 40 external rotation. Constant Murley Score was measured as 65. A magnetic resonance image (MRI) revealed the presence of 2x2x1.8 cm lesion within the biceps tendon sheath, rotator cuff tear and a bone cyst in the great tubercle. The treatment of choice was the open surgical treatment with excision of the lesion, curettage and spongiuous allografting of the bony cyst and repair of the rotator cuff with two suture anchors. The histological examination was consistent with PSC without any malignant transformation. The shoulder was immobilized postoperatively for 2 days in a sling. Immediate passive ROM exercises were started at third day for 6 weeks.

**Results:** At the 6 week follow-up, the patient achieved full symmetric restoration of motion. She had returned to full activity. Visual analog scale was rated 0 to 1 and Constant Murley Score was measured as 92. Functional examination of the left shoulder revealed 170 of abduction, at 160 forward elevation and at 40 external rotation. At 1-year follow-up, clinical findings were unremarkable, with no sign of recurrence.

**Conclusion:** PSC is a benign, idiopathic lesion of the synovial membranes of the diarthrodial joints. PSC is observed rarely in extra-articular shoulder involvement. Although the diagnosis of PSC is often clear with the results of radiological and intraoperative findings, it needs to be verified histologically. Surgical treatment is preferred to avoid the risk of malignant transformation, possible damage to the neighboring anatomical structures and functional disability as seen in our patient.

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