“Bridging the Lesion with Plate Approach” for Management of Aggressive Aneurysmal Bone Cyst (ABC) of Hip

Sharat Agarwal*
Department of Orthopaedics & Trauma, North Eastern Indira Gandhi Regional Institute of Health & Medical Sciences (NEIGRIHMS), Shillong, India

Figure 1: Preoperative X-ray of hip showing expansile aggressive osteolytic lesion of hip with soap bubble appearance.

Figure 2: Histological slide showing apart from cavernous RBC filled spaces and interspersed giant cells with fibroblastic cells lining the cysts.

Figure 3: Microscopic examination revealing apart from RBC cavernomatous cystic spaces with poorly interspersed trabeculae with osteoblasts, likened it to be ABC.

Figure 4: Postoperative radiograph after 3 months revealing healing of the site with no recurrence.

Figure 5: Postoperative radiograph after 3 months revealing healing of the site with no recurrence.

*Corresponding author: Sharat Agarwal, Department of Orthopaedics & Trauma, North Eastern Indira Gandhi Regional Institute of Health & Medical Sciences (NEIGRIHMS), Shillong, India, Tel: +91-9436336213; E-mail: drsharat88@yahoo.com


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Clinical Image

Aneurysmal bone cyst (ABC) is an osteolytic benign tumour, which is usually situated in the metaphysis of long bones and mostly encountered in patients younger than 20 years old. An aneurysmal bone cyst (ABC) localized to the proximal region of the femur in a 10-year-old male child was made out on the plain radiological investigation of the hip (Figure 1). The child had deep aching hip pain, which was progressing for last 6 months. On examination, child was walking with an antalgic gait with mild increase in local temperature and hip tenderness with terminal restriction of hip movements. There were no other complaints. Radiography revealed an extensive osteolytic lesion in the metaphyseal area of hip with "soap bubble appearance" with no invasion of the growth cartilage. Differential diagnosis considered was essential bone cyst, giant cell tumour, osteoblastoma & telangiectatic osteosarcoma. A biopsy is confirmatory (Figures 2 and 3). In view of the extensive size of lesion & location in the weight bearing area, treatment was planned with curettage and autologous bone grafting & the prophylactic "bridging the lesion with plate" approach, to avoid pathological fracture and awaiting the consolidation and healing of the site in due course of time (Figures 4 and 5).

Keywords: Lesion; Aneurysmal bone cyst; Hip