

among these lesions particularly benign Enchondroma, Low Grade Chondrosarcoma & high Grade Chondrosarcoma can be challenging. Differentiating them involves assimilation and interpretation of clinical, radiographic and histologic criteria.³

In a study conducted by Francis & Lee et al in 227 patients showed that the majority of patients were older than 50 years. The most common locations of occurrence of chondrosarcoma were Femur (40%) > pelvis > humerus > tibia and chest wall comprises only 02 % of all cases of chondrosarcoma⁴

Chondrosarcoma Histologically includes, conventional (hyaline and/or myxoid), clear cell, dedifferentiated, and mesenchymal variants. Conventional central tumors constitute about 90% of chondrosarcoma

The tumors vary in degree of cellularity, cytologic atypia, and mitotic activity. Low-grade or grade 1 lesions demonstrate mild hypercellularity, and the chondrocytes have plump vesicular nuclei with small nucleoli. Binucleate cells are sparse, and mitotic figures are difficult to find. By contrast, grade 3 chondrosarcomas are characterized by marked hypercellularity, extreme pleomorphism with bizarre tumor giant cells, and mitoses^{5,6}

Approximately 10% of conventional low-grade chondrosarcomas have a second high-grade component that has the morphology of a poorly differentiated sarcoma like MFH; this combination defines **dedifferentiated chondrosarcomas**.¹

In this case FNAC of the Chest lesion shows Mild hypercellularity, abundant Chondromyxoid Stroma & Chondroid fragments. Nuclear atypia, Mitoses & tumour giant cells were not seen. A diagnosis of Low Grade Chondrosarcoma was made. On reviewing Histopathological slides Showed Spindle shaped Cells arranged in Fascicles in Interlacing bundles intersecting each other at right angles (STORIFORM PATTERN). The cells Shows marked Pleomorphism Nuclear atypia, Hyperchromasia, Mitosis & Tumour giant cells (MFH Pattern). A Diagnosis of DE-DIFFERENTIATED CHONDROSARCOMA was made.

Thus on FNAC the diagnosis was missed & on HPR it turned out to be a high Grade sarcoma (MFH) and was reported as **DE-DIFFERENTIATED CHONDROSARCOMA**

4. Conclusion

Chondrosarcoma on Thorax/chest wall in a 28 year old patient is very rare in terms of Age & location. Also cytological differentiation between Enchondroma, Low Grade Chondrosarcoma & High Grade Chondrosarcoma is very difficult. Clinico-Radiological and Pathological correlation is essential in Reporting Bone and Soft tissue tumours. THE VERY RARE Nature of this Disease Merits its Reporting

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References

- [1] Andrew E, Rosenberg MD; Chapter 26, Bones Joints and Soft tissue tumours by Kumar, Abbas, Fausto Robbins and Cotran pathologic basis of Disease. 8 Edit. Elsevier Ph. 2005 : 1273- 1315
- [2] Chia-Jung Y, Shin Lin S, Fei Shih Y: Low Grade Chondrosarcoma of the ilium in a 3 year old boy: A Case report, Dept. of Radiology and Thoracic Surgery, Japan. Chin J Radiol 2009; 34: 135 - 139
- [3] Schieper A, Wang XL, Van Mark E: Low Grade chondrosarcoma vs enchondroma – Challenges in Diagnosis & Management, Dept. of Radiology & Pathology Belgium Eur. Radiol. 2001; 11: 1054-105
- [4] Lee FY: Chondrosarcoma of Bone: An assessment of outcome. J Bone Joint Surg Am 81:326; 1999
- [5] Enrique L, Edna T, Otte Brosjo, Lambert S: Diagnosis and Grading of Chondrosarcomas on FNA Biopsy, Dept of Cytopathology Sweden. 2002; 28: 13-17
- [6] Barnes R, Catto M. Chondrosarcoma of bone. J Bone Joint Surg Br 1966; 48: 729-764