Ossifying Fibromyxoid Tumour In A Rare Site

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ABSTRACT

Ossifying fibromyxoid tumor (OFMT) presents as a small painless well-defined lobulated subcutaneous mass. It is a rare soft tissue tumor of uncertain histogenesis. Approximately 100 cases of OFMT have been reported so far in literature. Although the majority behaves in a benign fashion, very rare tumors with histologic and clinical evidence of malignancy have been reported. Criteria for malignancy in OFMT have been defined by few authors (6). Histologically, the nuclear grade and mitosis were used to assess the biological potential of the tumor (1). We have presented here with OFMT at a rare site, anterior abdominal wall.

1. Introduction

A 29 Year old female presented with left hypochondrial mass of 6 months duration. The clinical diagnosis was desmoid tumor. USG showed an intramuscular mass in the region of left hypochondrial parietal wall. CT scan showed a well-defined homogenous mass measuring 4.6 x 4 x 3 cm in the parietal wall (Fig 3). FNAC was done and reported as spindle cell lesion in a myxoid matrix (Fig 1 & 2).

Fig 1 – FNAC showing spindle shaped cells in a myxoid matrix (10x)

2. Pathological Findings

Surgery and excision biopsy of lesion was done. We received a well circumscribed, lobulated soft tissue mass measuring 5 x 4 x 3.5 cm. External surface showed encapsulated mass with a thick capsule (Fig 4). Cut surface showed a grayish whitetumor with focal myxoid and gritty calcified areas (Fig 5). Microscopic examination showed spindle shaped cells arranged in nests and cords with focal herring bone pattern (Fig 6 & 7). Some foci show myxoid and collagenous stromal areas interspersed between the tumor cells, along with multiple foci of lamellar bone formation (Fig 8). The tumor cells are round to ovoid with vesicular nuclei, small nucleoli and eosinophilic cytoplasm. The mitotic count is very very less and barely identifiable.
A panel of immunohistochemical markers including cytokeratin, vimentin and S-100 was done. The tumor cells showed diffuse positivity for vimentin (Fig 9) and S-100 (Fig 10), and staining for cytokeratin yielded negative result. Post operatively patient had no untoward symptoms and was doing well till date.

Fig 3 – CT Picture showing well defined homogenous mass in the parietal wall

Fig 4 – Excised specimen showing a well encapsulated mass

Fig 5 – Excised specimen showing gray white and myxoid areas

Fig 6 – Microscopy showing spindle shaped cells in diffuse sheets (10x)

Fig 7 – Microscopy showing areas of calcification in between the tumor cells (H&E stain 10x)

Fig 8 – Microscopy showing lamellar bone (H&E stain, 40x)
Osseous fibromyxoid tumor is a rare neoplasm and presents as a small painless well-circumscribed mass in the subcutaneous tissue or intra muscular involving the extremity in 70% of the cases. It has a male predominance and rarely affects children (2). Very few cases involving the abdominal wall have been reported in literature. This is a case of typical ossifying fibromyxoid tumor with low cellularity, low grade and a mitotic rate of < 2/HPF. Less common sites include head, neck, mediastinum, and retroperitoneum. The encapsulation and immunohistochemical expression of neural antigens including S-100 is suggestive of peripheral nerve sheath differentiation. Furthermore ultrastructural features suggest schwannian differentiation, prompting this may be regarded as low grade malignant peripheral nerve sheath tumor (3). The clinical behavior in most of the cases is that of a benign tumor, but almost 22% show local recurrence (4) and distant metastasis have been reported in 6% of the cases (5).

REFERENCES:


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