

Malignant fibrous histiocytoma of eyelid

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Abstract

Malignant fibrous histiocytoma is undifferentiated soft tissue sarcoma of mesenchymal origin. It has predilection for male in later age of life, and upper and lower extremities are commonly affected.^[1] We are reporting case of 35-year-old female, presented with left eyelid swelling, and histopathologically diagnosed as malignant fibrous histiocytoma.

Keywords: Malignant fibrous histiocytoma, Atypical fibroxanthoma, Eyelid swelling.

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Malignant fibrous histiocytoma is undifferentiated soft tissue sarcoma of mesenchymal origin. It has predilection for male in later age of life, and upper and lower extremities are commonly affected.^[1] We are reporting case of 35-year-old female, presented with left eyelid swelling, and histopathologically diagnosed as malignant fibrous histiocytoma. Patient gave history of swelling over left eyelid. Initially it was small and increased gradually over period one year. Patient presented to ophthalmic OPD. On local examination swelling of size 8x5x4cm present over left eyelid, and firm in consistency. (fig.1) On MRI neoplastic growth in left orbit extending into intracranial compartment, and causing distortion and displacement of eye globe reported.

Patient underwent operation involving total removal of left eyelid mass with wide margin. We received skin covered globular mass of size 6x4x4cm, and on cut section grey white tumor seen. (Fig. 2) microscopically tumor showed fascicles of spindle to oval cells with spindle to oval pleomorphic nuclei. Storiform pattern, Mitotic figures seen. (Fig. 3 and Fig. 4) Immunohistochemically tumor, positive for vimentin, CD 68, CD-10, smooth muscle actin, and desmin. Negative for cytokeratin, S-100, CD-34, and CD-99. Considering histological features and immunohistochemistry, diagnosis of malignant fibrous histiocytoma made.

Malignant fibrous histiocytoma was first described in 1961.^[2] Classified by o'brein and Stout in 1964 as distinct histological type of soft tissue sarcoma showing

a pleomorphic phenotype, and a storiform pattern derive from histiocytes.^[3] Poorly differentiated pleomorphic soft tissue sarcoma often together grouped as MFH. Fibrous histiocytoma are most common mesenchymal tumor of orbit in adults. Approximately 10% of these have been classified as MFH. The main differential diagnosis of MFH extending into dermis and subcutaneous tissue includes atypical fibroxanthoma, spindle cell carcinoma, spindle cell malignant melanoma, leiomyosarcoma; fibro sarcoma. Weiss and Enzinger described four types of MFH. Storiform, myxoid, giant cell, and Inflammatory. In our case, most close diagnosis was atypical fibroxanthoma. Both AFX and MFH are of common fibrohistiocytic lineage. Both tumor shares common cellular morphology and immunohistochemistry features. AFX has predilection for head and neck region, whereas MFH mainly affects upper and lower limbs. AFX is dermal in location. Whereas, MFH invades deeper dermis, muscle fascia, and adipose tissue. Key histological features like deep invasion, necrosis, perineural invasion and a mitotic figure differentiates MFH from AFX. Malignant fibrous histiocytoma of eyelid is very rare. So far, only eight cases reported in English literature. Four case reports by Roth AM et al, Nath R et al, Boynton JR et al, Rossi P et al, and four case series report by J. J. Khong et al.^[4] Ophthalmologist should keep MFH as differential diagnosis of aggressive eyelid swelling. As these tumors can either invade locally or metastasise. Local excision with negative margin and adjuvant radiotherapy is treatment.^[5]



Fig. 1: Clinical picture of patient

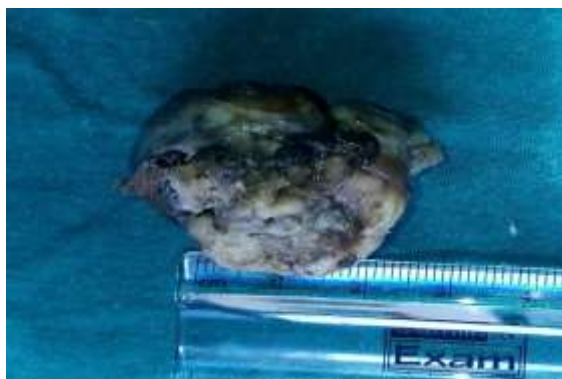


Fig. 2: Skin covered globular tissue piece of size 6x4x4cm



Fig. 3: Microscopically tumor showed fascicles of spindle to oval cells with spindle to oval pleomorphic nuclei. Storiform pattern and Mitotic Fig. seen 10x

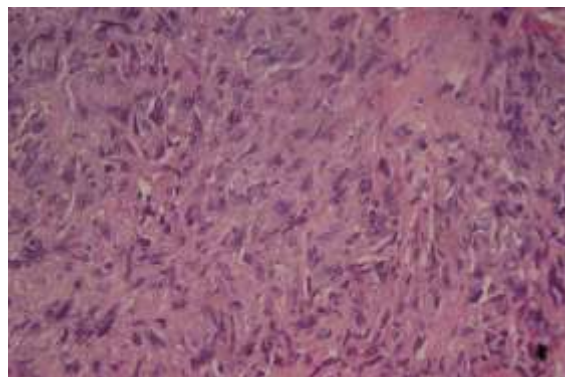


Fig. 4: Microscopically tumor showed fascicles of spindle to oval cells with spindle to oval pleomorphic nuclei and mitotic Fig. seen 40x

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