Commentary

Pleomorphic malignant fibrous histiocytoma (MFH), also known as undifferentiated high grade pleomorphic sarcoma, is a rare primary breast neoplasm primarily seen in middle-aged women and rarely elderly men. Distant metastases and older patient age are associated with poor outcome. In soft tissue and bone, its spectrum of subtypes is well known, and its diagnosis is one of exclusion. The differential diagnosis of primary breast MFH is particularly challenging when histologic or focal immunohistochemical features characteristic of more common epithelial and mesenchymal tumors are present. Chakrabarti *et al*.,[1] present an interesting and relevant case of primary breast MFH presenting clinically with neurologic symptoms due to cerebellar metastases.

As the authors point out pleomorphic MFH is traditionally a heterogeneous group of malignant myofibroblastic-fibrohistiocytic tumors, with well-defined storiform-pleomorphic, myxoid, giant cell, and inflammatory morphological variants, often immunophenotypically diagnoses of exclusion.[2] Their rare occurrence as a primary breast neoplasm requires ruling out more common breast primary neoplasms,

including sarcomatoid carcinoma.[3] Failure to recognize entrapment of normal breast glands can lead to misinterpretation as a biphasic tumor, such as malignant phyllodes. Careful attention to histologic features and exclusionary immunohistochemistry, even with limited tissue samples as in the case presented by Chakrabarti *et al*., will afford recognition of MFH and prevent misdiagnosis of more common epithelial, melanocytic, hematologic and other mesenchymal neoplasms.[4]

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References

1. Chakrabarti I, Ghosh N, Giri A. Cytologic diagnosis of undifferentiated high grade pleomorphic sarcoma of breast presenting with brain metastasis. J Neurosci Rural Pract 2013;4:188-90.
2. Fletcher CD, Krishnan Unni K, Mertens F. World Health Organization Classification of Tumors. Pathology and Genetics: Tumors of Soft Tissue and Bone. Lyon: IARC Press; 2002.
3. Fletcher CD. Pleomorphic fibrous histiocytoma: Fact or fiction? A critical reappraisal based on 159 tumors diagnosed as pleomorphic sarcoma. Am J Surg Pathol 1992;16:213-28.
4. Hartel PH, Bratthauer G, Hartel JV, Fanburg-Smith JC. Primary malignant fibrous histiocytoma of the breast: Clinicopathologic study of 19 cases. Ann Diagn Pathol 2011;15:407-13.

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