CORE DIAGNOSTICS[™]



DISCUSSION

Myxoinflammatory fibroblastic sarcoma (MIFS) is a rare malignant soft tissue tumor first reported in 1998 by three independent investigators.¹ It predominantly arises in the distal extremities of adult patients usually between fourth and fifth decades of life. It can also rarely develop in other regions such as head, face, gluteal region, and chest wall.^{2,3} MIFS usually present as a slow-growing, solitary and painless mass. Most MIFSs behave as low-grade malignant neoplasms as they have a high propensity for local recurrence, although nodal and distant metastases is rare.^{4,5} The etiopathogenesis of MIFS is unknown. Some cases have been associated with history of trauma. In view of virocyte-like cells, an infectious etiology has also been proposed, but no micro-organisms have ever been detected. The prominent inflammatory component seen in MIFS has led to the suggestion that mediators of chronic inflammation, including various cytokines, may be implicated in its development.^{6,7} Histologically, MIFS is characteristically a multinodular lesion composed of hypocellular and hypercellular areas comprising of atypical spindle to epithelioid cells, vacuolated fibroblasts mimicking lipoblasts (pseudolipoblasts), and large pleomorphic virocyte-like or Reed–Sternberg-like cells within prominent myxoid stroma containing a mixed inflammatory cell population and variable hemosiderin deposition and fibrosis.⁶⁻⁸ The mitotic activity is usually low. Role of immunohistochemistry in diagnosing MIFS is limited. However, expression for CD34 and CD68 with typical negativity for SMA and EMA may be seen.

Although the histology of MIFS appears benign, it is known to recur. Cases with atypical features have been described in literature like presence of complex branching and/or thick-walled arcuate vessels, small cellular areas of epithelioid or spindle cells in solid, fascicular, or