NODULAR FASCITIS: DIAGNOSTIC CHALLENGE ON FINE NEEDLE ASPIRATION

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ABSTRACT:
Nodular fasciitis is a benign tumor with a rapid proliferation of myofibroblastic cells. Usual localizations are the trunk and upper limbs.
Case History: A 27-year-old male presented with complaints of pain and swelling in left iliac region. On examination the swelling was single, soft to firm measuring 6x5cm with no overlying skin changes. Clinical diagnosis of lipoma was made.
Conclusion: We reported a case of Nodular fascitis on fine needle aspirate, a benign lesion that can occur at any anatomical site. Due to its rapid growth and the presence of mitoses and spindle cells and its rich cellularity, the differential diagnoses of sarcoma, including sarcomatoid carcinoma, fibrosarcoma, and leiomyosarcoma, are important.

Keywords: Fascitis, Nodular, FNAC

INTRODUCTION

Nodular fasciitis is a benign myofibroblastic proliferation, which was first reported in 1955 as pseudosarcomatous fibromatosis or fasciitis [1]. The exact aetiology of this proliferative lesion is not known. The triggering factors postulated are local injury or inflammation [2].We herein present a case of nodular fasciitis emphasizing its clinical and morphological features.

CASE HISTORY

A 27-year-old male presented with complaints of pain and swelling in left iliac region. On examination the swelling was single,soft to firm measuring 6x5cm with no overlying skin changes. Clinical diagnosis of lipoma was made.Ultrasonography was suggestive of 5.1x4.1 cm sized heteroechoic well encapsulated mass in subcutaneous plane in left iliac fossa, with poor internal vascularity abutting the surrounding muscles suggestive of lipoma or a dermoid cyst.

Cytopathological Examination : PAP and MGG stained smears revealed moderate cellularity showing mixed population of cells comprising elongated spindle shaped cells with centrally placed oval nuclei(fig.1&2).Some cells were round to ovoid with eccentrically placed nuclei and pale cytoplasm. Few ganglion cells like binucleate (fig.3)and occasional multinucleate cells were also seen on a myxoid background(fig.4) Mild inflammatory infiltrate comprising of neutrophils was also noted ,suggestive Nodular Fascitis of left iliac swelling.

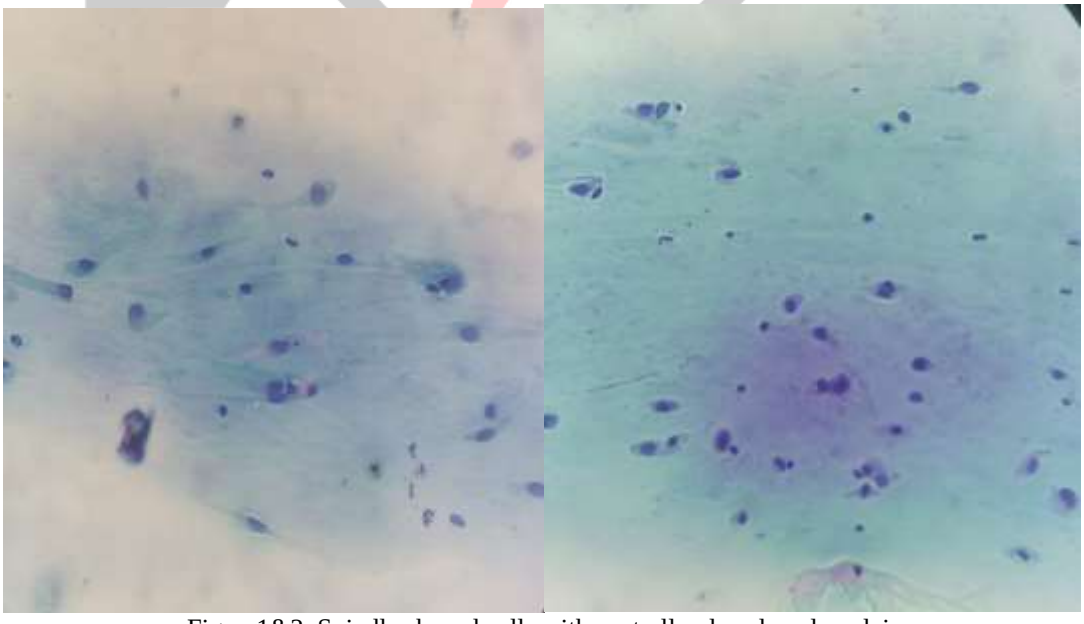

Figure1&2. Spindle shaped cells with centrally placed oval nuclei.

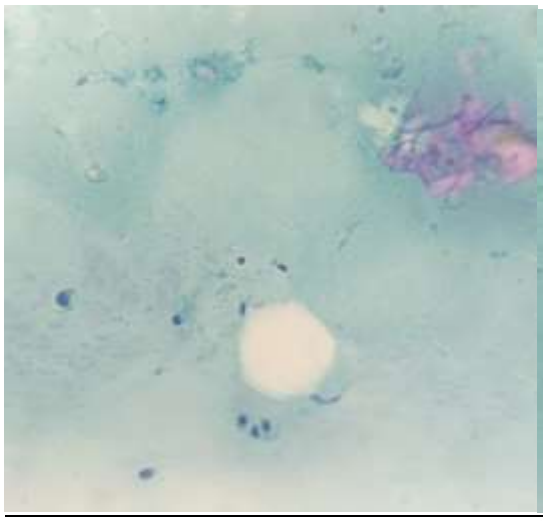

Figure 3. Myxoid background

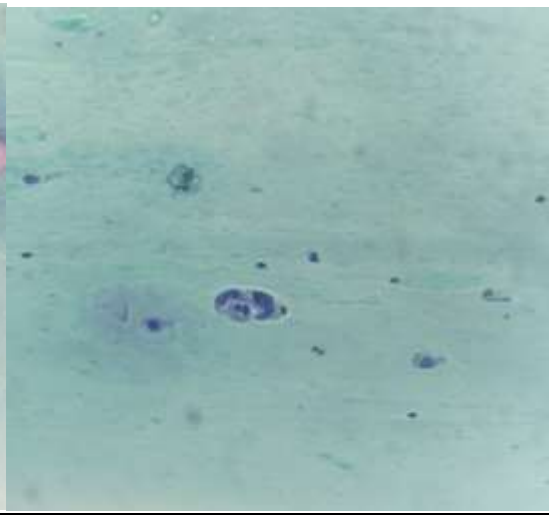

Figure 4. Ganglion like binucleate cells

DISCUSSION

Nodular Fascitis is characterized by myofibroblast and fibroblast proliferation. Immunohistochemical panels are often needed to aid in diagnosis, showing positivity for vimentin, smooth muscle actin, and muscle specific actin (6-10).Pathologically, nodular fasciitis is an unencapsulated lesion that is typically well demarcated from the surrounding uninvolved tissue but may be focally infiltrative (3) Fine needle aspiration cytology done in the evaluation, though the diagnosis is quite challenging. (4). Microscopically, these lesions are characterized by a cellular spindle cell growth in a loosely textured mucoid matrix with lymphocytic infiltration and extravasations of red blood cells. Treatment options include observation, as spontaneous regression has been reported [5], intralesional steroid or marginal excision. Local excision is by far the most commonly opted treatment. Recurrence after excision is very rare.

CONCLUSION

We reported a case of nodular fascitis present on rare location diagnosed on FNAC which is very challenging and it is often mistaken for a sarcoma because of its rapid growth, rich cellularity, high mitotic activity and poorly circumscribed nature, which may result in it being easily misdiagnosed as a sarcomatous lesion like malignant fibrous histiocytoma or fibro sarcoma.

CONFLICT OF INTEREST

The authors declared no potential conflicts of interest regarding research, publication of the article.

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