

# Nodular Fascitis: An Underrecognized Entity

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## Abstract

Nodular fascitis is a benign neoplasm affecting the subcutaneous tissues of extremities in young adults. We report a case of 42-years, old female who presented with a subcutaneous swelling in left flank region. Surgical excision was carried out and histopathological examination revealed it as nodular fascitis.

## INTRODUCTION

Nodular fascitis is a benign mesenchymal neoplasm that appears as a firm, solitary nodule in the subcutaneous tissues.<sup>1</sup> The lesions are rapidly growing and affect the proximal upper and lower extremities of adults.<sup>2</sup> Excision biopsy is usually sufficient to treat the condition. We encountered a rare case of nodular fascitis involving left flank which is being described.

## CASE

A 42 years old woman presented with a gradually enlarging swelling over the left flank region of four months duration. There was no history of trauma. Physical examination revealed a non-tender, firm, subcutaneous swelling of size 7 X 5 cm (Fig.1).

### Figure 1

Picture taken in pre-operative period showing a pinkish-red coloured lesion having irregular margins with slight mobility present in left flank.



Its surface was hyper-pigmented with minimal dimpling at the centre. The margins were irregular and mobility was restricted in the horizontal plane. There was no evidence of

any systemic involvement. The lesion was surgically excised and sent for histopathological examination (Fig.2).

### Figure 2

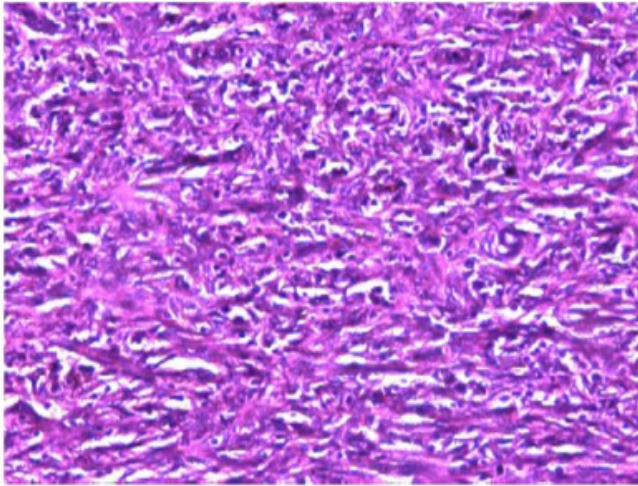
surgically excised specimen showing a pinkish red lesion of size 6 X 4 X 3cm having irregular margins



Histopathology revealed numerous large pleomorphic fibroblasts embedded in a mucoid appearing ground substance, features diagnostic of nodular fascitis. Numerous well formed capillaries were also seen. An infiltrate composed of chronic inflammatory cells was present towards the periphery of the nodule(Fig.3).

### Figure 3

Histopathological picture of excised swelling (X10): showing numerous large pleomorphic fibroblasts embedded in a mucoid appearing ground substance, features diagnostic of nodular fascitis. Numerous well formed capillaries and chronic inflammatory cells present towards the periphery of the nodule.



### DISCUSSION

Nodular fascitis was first described in 1955 by Konwaler who coined the term pseudosarcomatous fibromatosis because these nodules were often confused with sarcomatous lesions. It is also called proliferative fascitis, subcutaneous fascitis, nodular fibrositis or infiltrative fascitis.<sup>3</sup> The aetiology of nodular fascitis is still unknown but myofibroblastic proliferation triggered by local injury or a local inflammatory process is generally considered to be the cause in most cases.<sup>2</sup> Nodular fascitis most commonly affect the adults between 30 and 50 years of age and approximately 10 percent of the lesions occur in children.<sup>2</sup> It is rare over the age of 50 years. It often begins as a solitary subcutaneous

nodule that develops rapidly, reaching a size of 1-5 cm within a few weeks. Although the forearms and the arms are the most common sites, it may arise from the subcutaneous tissue, muscle or fascia at any location.<sup>4</sup> In infants and children the head and neck region is more commonly involved. Although imaging studies such as ultrasonography, CT, or MRI have been used, the diagnosis of nodular fascitis requires histological confirmation.<sup>5</sup> Both the diagnosis and treatment are accomplished by excision biopsy. The classic pathologic appearance is a haphazardly arranged bundles of fibroblasts in a myxoid or mucoid background. Extravasated red blood cells, mitosis figures, undulating wide bands of keloid-like collagen lined by proliferating spindle cells and other signs of hypercellularity are often noted.<sup>6</sup> The fibroblasts are often large and pleomorphic fibroblasts may be present. The nodule does not usually have a capsule but is usually well demarcated from surrounding tissues. Three types of lesions are described in nodular fascitis based on histological features.<sup>2</sup> The myxoid form have the shortest history and have the most active mitosis on pathology while the fibrous types tend to have the longest history and the cellular group tends to be of intermediate duration. Once the diagnosis is made by excision biopsy, no further treatment is typically needed. Spontaneous regression of incompletely excised lesions of nodular fascitis has also been reported and recurrence is rare.<sup>7</sup>

A rare condition over a rare site prompted us to present the case. A surgeon should be well aware of this entity and must keep it as differential while encountering the subcutaneous swellings.

### References

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