

# A rare case of maxillary nodular fasciitis. Case report and short literature review.

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## Abstract

Nodular fasciitis (NF) is a rare benign, rapidly growing, self-limiting condition rarely affecting head and neck district. Following a short Literature review, the authors report a rare case of maxillary Nodular Fasciitis in an elderly, pointing out that in selected cases direct surgery could avoid misdiagnosis, delays and overtreatment.

## KEY CLINICAL MESSAGE

Nodular fasciitis has to be considered as an option in the presence of a solitary, rapidly growing mass even in elderly adults. When feasible, direct surgery should be preferred to FNAC, particularly in the late adult because of high misleading risk.

## INTRODUCTION

Nodular fasciitis (NF) or pseudosarcomatous fibromatosis was first described in 1955 (1) and it is a rare benign condition in which fibroblasts rapidly proliferate from the deep fascia to the adjacent tissues, including muscle and subcutaneous tissue. It is a self-limited, solitary lesion whose pathogenesis is still uncertain. NF seems to be related to local traumas in only 10-15% of cases (2).

In most of the non-traumatic cases recent studies identified rearrangements of the USP6 gene, often with MYH9 (3). In about half patients local tenderness or pain is reported whereas paresthesia and shooting pain is mostly present when NF involves the upper limbs. Given the self-limiting nature of the lesion, the definition of “transient neoplasia” has been proposed (3). NF shows no predilection for gender or race, and affects the upper extremities (43%), the trunk (25%), and head and neck district (10%) in young adults aged 20–40 years (2). Differential diagnosis encloses, fibrosarcoma, fibroma, schwannoma, fibrous histiocytoma, and desmoids. Histopathology and immunohistochemistry play a pivotal role in diagnosis as FNAC might be useful but not conclusive (4,5,6,7). In fact, NF can be correctly diagnosed only if the cytologist is aware of its clinical and cytologic features (8). After proper surgical excision recurrence is very rare (2).

## CASE PRESENTATION

An 85-year old female with type II diabetes and heart failure, treated with metformin, antihypertensives and antiplatelet drugs, presented to our department with a 4-months history of a rapidly growing mass located within the soft tissues of the right cheek. The lesion was painless and no other signs or symptoms were further reported.

Clinical history did not highlight any local recent event. Patient examination revealed a palpable, round, painless and firm lesion located on the right cheek, without alteration of the overlying skin.

An US scan confirmed the presence of the a 25mm nodular mass adherent to the fascia without local neck nodes involvement.

Soon after, the patient underwent complete surgical excision of the lesion under local anesthesia which was easily obtained by a small intraoral access. Definitive histopathological examination of the surgical specimen showed atypical fibrocytes and histiocytes proliferation in a fibromixoid stroma. The cells resulted negative for the presence of S-100, cytokeratin AE1-AE3 and desmin, and thus diagnosis of Nodular Fasciitis (NF) was made.

At Two-years follow-up there was no local recurrence.

## DISCUSSION AND CONCLUSIONS

Nodular fasciitis is a rare growing self-limiting benign condition more frequent in the young adults rapidly proliferating and spreading to adjacent tissues thus mimicking a malignancy. It is most commonly misdiagnosed as spindle cell sarcoma, owing to its rapid growth, high cellularity, cellular as well as nuclear polymorphism and mitotic activity. A recent study (8) reported that 18% of cases were misdiagnosed as sarcoma. Moreover, Plaza et al. reported that two-third of their cases had been misdiagnosed as sarcoma which is more frequent in late adult life such as our patient (9).

In this case, the lesion was easily affordable and the patient had a poor compliance due to her age and not fair general condition.

That is why decided to make directly local surgery instead of performing FNAC as it would have been led to either diagnostic delay or misdiagnosis with consequent overtreatment.

In conclusion, although rare, nodular fasciitis has to be considered as an option in the presence of a solitary, rapidly growing mass even in elderly adults. In our case, clinical history would have suggested a malignancy, but resulted as a benign lesion.

To the purpose, we believe that, when feasible, direct surgery should be preferred to FNAC, particularly in the late adult patients thus avoiding misdiagnosis, delays and overtreatment.

## CONFLICT OF INTEREST

The Authors declared no conflicts of interest.

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## AUTHOR CONTRIBUTION

- **MASSARELLI M.** made substantial contribution to conception, design and acquisition of data analysis and interpretation of data.
- **PAPARO F.** has been involved in drafting the manuscript and revising it critically for important intellectual content.
- **BENEDETTI S.** has been involved in drafting the manuscript and revising it critically for important intellectual content.

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