



Nodular Fasciitis of Lower Eyelid Case Report

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Abstract :

Nodular fasciitis is benign proliferative spindle cell lesion which presents as a painless rapidly growing mass. A rare presentation of swelling in the lower eyelid is described. Patient came with a painless swelling over the left lower eyelid since one month which was increasing in size progressively. Excision biopsy was done under general anesthesia with primary closure. Based on history, clinical picture and histo-pathological examination, the lesion was diagnosed as Nodular Fasciitis. Though not so frequent, nodular fasciitis should be considered in the differential diagnosis of lower eyelid swellings

Keyword : Nodular fasciitis , subcutaneous pseudosarcomatous fibromatosis, eyelid swelling

Introduction:

Nodular fasciitis was first described in 1955 by Konwaler et al [1], as subcutaneous pseudosarcomatous fibromatosis (fasciitis).

In the peri-orbital region, Font and Zimmerman [2] were first to describe nodular fasciitis. Cause of the lesion is not known exactly but it is considered to be a self-limiting reactive process but clinical findings and pathologic appearance can be mistaken for a soft tissue sarcoma. It is more common in third or fourth decade of life with affecting males and females with equal frequency [3]. Recurrence of nodular fasciitis is rare which is around 1%-2% after standard excision [4,13]. We present a case of nodular fasciitis involving lower eyelid. To our knowledge, this is the first report of nodular fasciitis occurring in lower eyelid.



Case Fig 1

A 53-year-old man presented to us with history of swelling over the left lower eyelid. He had noticed progressive swelling one month earlier without history of infection or trauma. Examination showed a single firm swelling measuring 20× 15 mm [Fig 1]. The overlying skin was mobile and as well as swelling was not adhered to underlying tissue [Fig 2]. Patient underwent excision biopsy under general anesthesia with primary closure. A biopsy specimen showed tumor arranged in sheets and fascicles composed of plump cells with vesicular nuclei, with mild pleomorphism, some showing prominent nucleoli, moderate eosinophilic cytoplasm, indistinct cell borders and small caliber blood vessels [Fig 3]. Focal areas of collagen deposition were present in between tumors fascicles. Immunohistochemistry showed tumors cells positive for SMA [Fig 4] and negative for desmin, CD34 and H-caldesmon. The postoperative course was uneventful and was discharge without any complication.



Fig 2 Fig 3

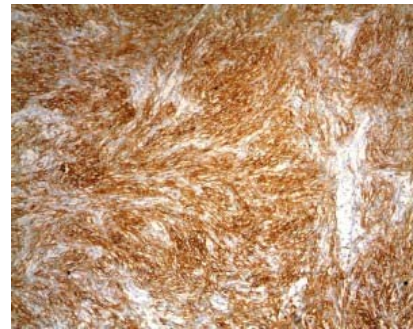
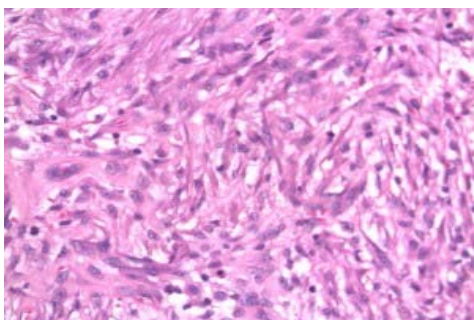


Fig 4

Discussion:

Nodular fasciitis (NF) is a benign, reactive proliferation of fibroblasts and vascular elements that affects the subcutis. It is characterized by a solitary, firm, rapidly growing mass. NF accounts for 0.18% of all pathological diagnoses, however, the exact cause is unknown though history of trauma is thought to be initiating the lesion. NF in lower eyelid is rare and clinical features are similar to other facial lesions in these regions. Differential diagnosis should consider similar entities such as fibrous histiocytoma, Juvenile xanthogranuloma, fibromatosis, myxoma, and fibrosarcoma [5]. It may arise in any part of the body but more common in forearm and arm[6]. Histologically nodular fasciitis consists of pleomorphic fibroblast growing haphazardly in the stroma and it contains mucoid substance, reticulum, collagen fibers and few authors believe that these fibroblastic cells are myofibroblast but still the origin of the multinuclear giant cells are not clearly understood [7]. Immunohistochemistry shows spindle cells in nodular fasciitis which are positive for vimentin, actin and negative for desmin, keratin or S100 protein [8]. On MRI scan, On T1W images, nodular fasciitis has signal intensity similar to or slightly higher than skeletal muscle.

With T2W sequences, the condition most often has a high signal intensity (> subcutaneous fat) but may demonstrate intermediate signal intensity. Lesions are frequently homogeneous on T1W sequences and heterogeneous on longer repetition time (TR) acquisitions [9]. Nodular fasciitis must be distinguished from other several malignant neoplasms with spindle cell proliferation. The main differential diagnosis of this tumor is fibrosarcoma. The differentiating feature of fibrosarcoma or soft tissue tumors in comparison to NF is presence of the vascular component, the mucinous changes, and the inflammatory infiltrate. Nodular fasciitis can be divided into three subtypes based on their relationship with the fascia: subcutaneous, intramuscular, and fascial. Nodular Fasciitis can be divided into three histological subtypes, myxoid, cellular and fibrous [10]. But uncommon clinical and pathological variants of nodular fasciitis, such as intravascular, cranial, ossifying, and proliferative fasciitis, have been described. Intradermal variant of nodular fasciitis was first documented by Goodlad and Fletcher most common in head and neck region [11]. Proliferative fasciitis appears similar to nodular fasciitis but histologically shows giant cells with abundant irregular outlined basophilic cytoplasm with one or more large vesicular nuclei. The lesion may be misdiagnosed as rhabdomyosarcoma or ganglioneuroblastoma. Cranial fasciitis appears as rapidly growing mass in scalp which invade cranium. It affects infants under one year of age. Local excision is treatment of choice but spontaneous regression of nodular fasciitis has been reported with few cases documented in the literature, and most often regression followed incomplete excision of the lesion [12]. Cases of rapid resolution of nodule with intralesional corticosteroid injection are also reported in literature [6]. Excision biopsy is ideal as it gives diagnostic

confirmation and treatment. This case demonstrates that, although infrequent in left lower eyelid region, nodular fasciitis should be considered in the differential diagnosis of eyelid swellings. Nodular fasciitis can be differentiated from other swellings by histopathological examination of the tissue.

Conclusion:

We present a case report of nodular fasciitis in lower eyelid region. We should be aware of this pathological entity and consider it in differential diagnosis which exhibit spontaneously regressing and recurring course and support complete excision of suspected nodular fasciitis lesion.

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