

Nodular Fasciitis of the Maxillofacial Region Nodular Fasciitis of the Maxillofacial Region in a Pediatric Patient - a “Sheep in Wolf’s Skin”

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1. Introduction

Nodular fasciitis (NF) is a rare reactive benign, rapidly growing lesions of myofibroblastic origin that mimics fibrosarcoma, “a sheep in a wolf’s skin”. Usually it affects subcutaneous tissue, muscle and fascia. The most common site of NF are the extremities, trunk, head and neck and the most common site is maxillofacial region [1,2] the exact pathology remain unknown but it’s believed to be following trauma [3]. We present a case of NF following maxillofacial trauma in pediatric patient.

2. Case Report

1.5 years old child was admitted to the emergency room of Poria hospital owing to swelling of the right cheek after trauma. Approximately 2 weeks after the trauma, swelling became apparent in the aforementioned area. The tentative diagnosis was of a post-traumatic infected hematoma, and oral antibiotic was prescribed. Because a suspicious of abscess formation needle aspiration was done but there was no puss but bony lysis was suspected. The CT scan (Figure 2) revealed a lesion of the soft tissue of the right maxilla, with bony involvement. Under general anesthesia the lesion which had consistency of neoplasm was removed in its entirety including the associated periosteum, which was easily separated from the surrounding tissues by vestibular approach (Figure 3). The histological diagnosis was Nodular Fasciitis (Figure 4). The child’s recovery was uneventful, and he returned to his normal activities after 1 week. Microscopically, the lesion showed a mono-

morphous growth of fibroblast-like cells on a loosely textured (edematous) background, rich in small blood vessels with extravasation of erythrocytes, in a pattern resembling tissue culture. The mitotic activity was mild; no cellular atypia or pleomorphism was seen.



Figure 1: A 1.5 years old child with swelling of the right cheek.

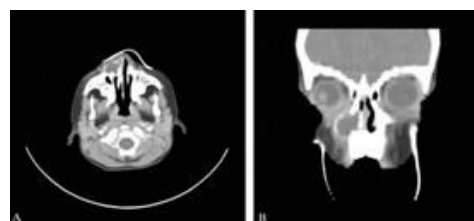


Figure 2: Axial(A) and coronal(B) CT scan showing soft tissue with bony involvement of the right maxilla.



Figure 3: Intraoperative removal of the lesion.

3. Discussion

NF is a benign, proliferative lesion that composed of myofibroblasts that mimic sarcoma, “a sheep in wolf skin”. It may occur in any age. In pediatrics its prevalence is low, with only 10% of reported cases, in the pediatric population, its most commonly reported in the head and neck region, most common presenting location was in maxillofacial region, based on a 20- years study that includes 15 patient [2]. The pathogenesis of NF is unknown. However, its assumed that it occurs after a trauma, which is considered a triggering factor [4]. In our case microscopically, the lesion showed a monomorphic growth of fibroblast-like cells on a loosely textured (edematous) background, rich in small blood vessels with extravasation of erythrocytes, in a pattern resembling tissue culture. The mitotic activity was mild; no cellular atypia or pleomorphism was observed (Figure 4). Imaging can be useful for diagnosis. In any case of a head and neck mass with a superficial location and moderate to marked enhancement on CT and magnetic resonance imaging [5]. NF should be included in the differential diagnosis, especially in the patients with a recent, rapidly growing mass and history of recent trauma. The differential diagnosis of solitary mass should include salivary gland tumors, solitary fibrous tumor, neurofibroma, schwannoma, intramuscular lipoma, myofibroma, fibromatosis, various infectious process, squamous cell carcinoma and rhabdomyosarcoma. The diagnosis is based on the basis of the clinical course, imaging, and the histologic findings [6]. The treatment of these lesions consists of local excision, without the need for tumour-free margin.

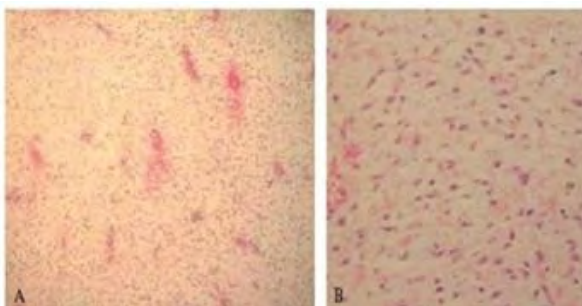


Figure 4: The histological diagnosis was Nodular Fasciitis (Figure 4). The child's recovery was uneventful, and he returned to his normal activities after 1 week.

4. Conclusion

NF is a rare reactive, benign lesion that we should be aware of, especially in cases of recent trauma, in order to diagnose and treat it.

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