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Case Report

Nodular fasciitis in finger simulating soft tissue malignancy☆,☆☆

Soraya Silveira Monteiro, Diva Helena Ribeiro, Tatiane Cantarelli Rodrigues, Gerson Ferreira Gontijo Junior, Kylza Arruda, Eloy De Avila Fernandes*

Hospital do Servidor Público Estadual, São Paulo, SP, Brazil

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ABSTRACT

Nodular fasciitis (NF) is a rare fibroblastic proliferative lesion, characterized clinically as a solitary mass of hardened and slightly painful on palpation, fast growing and no gender preference. The objective of this study is to report the case of a patient with NF in third finger of left hand, describe the findings of plain radiography, computed tomography and magnetic resonance imaging and correlate with the literature. Since the diagnosis of NF is a challenge, being necessary to conciliate the clinical, radiological and pathological.

Fasciíte nodular em quirodáctilo que simula neoplasia maligna de partes moles

Palavras-chave:
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RESUMO

Fasciíte nodular (FN) é uma lesão proliferativa fibroblástica rara, caracterizada clinicamente como uma massa solitária de consistência endurecida, pouco dolorosa à palpação, de crescimento rápido e sem predileção por sexo. O objetivo deste trabalho é relatar o caso de uma paciente com FN no terceiro quirodáctilo da mão esquerda, descrever os achados da radiografia simples, tomografia computadorizada e ressonância magnética e correlacionar com a literatura. Visto que o diagnóstico de FN é um desafio, é necessário conciliar os achados clínicos, radiológicos e patológicos.

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* *Corresponding author.*
E-mail: tcantarelli@gmail.com (T.C. Rodrigues).

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Introduction

Nodular fasciitis (NF) is a benign soft tissue injury of unknown etiology,[1–4] characterized by proliferation of fibroblasts and often confused histologically with sarcomas, because of its rapid growth, high cellularity and increased mitotic activity.[1,3,4]

The lesions are commonly solitary, occur in adults between 20 and 40 years old,[1–4] and affect any region of the body.[1,5]

This is a self-limiting disease.[2,3] Patients usually have a history of rapid growth and nodulation, and may develop numbness or paresthesia.[1–3,6]

Its diagnosis is challenging and can be confused with malignant tumors, because of the aggressive clinical behavior associated with imaging and histology findings.[1–3] Multiple lesions are rare,[1,7] as well as lesions in hands and feet, and very rare in the fingers.[8]

Given this fact, we report a case of FN on the finger, since the knowledge of the appearance of the imaging studies can avoid aggressive invasive procedures, since the histological study without image may lead to suspicion of a lesion with high aggressiveness.

Case report

Patient, female, 45 years old, teacher, referring appearance of nodulation of rapid growth in the third left finger for two years; painless, but with local discomfort. She denied trauma or previous surgery. The physical examination showed volar nodulation in the proximal phalanx of the third chirodactyl, adhered to the skin without retraction or phlogistic signs, and measuring approximately 2 cm.

Plain radiography (RX) revealed ossification of soft tissues of the radial and flexor diaphyseal faces of the proximal phalanx of the finger, with irregular and partially defined contours, cortical erosion and lamellar periosteal reaction proximal and distal to the nodule, and increased volume and density of parts of the adjacent soft tissue (Fig. 1). Computed tomography (CT) ratified these findings and demonstrated more clearly the ossification, extending from the bone and externally involving the cortical flexor contiguous with the radial and flexor aspect nodulation (Fig. 2). MRI revealed expansive formation on soft parts of the radial face of the proximal phalanx, which promoted slight thinning of the cortical bone with intimate contact, and superiorly displaced the extensor hood. The lesion depicted the iso/hypersignal relative to muscle on T1, heterogeneous signal with mild hypersignal on T2, and significant heterogeneous enhancement to paramagnetic contrast medium, associated with a bone marrow edema pattern (Fig. 3).

The patient underwent surgical exeresis, and the histopathological examination revealed fibrous connective tissue with neoformation and trabeculation, favoring the diagnosis of NF. Five months later, MRI depicted only fibrocicatricial changes in soft tissues, without significant enhancement in the contrast medium (Fig. 4).

Discussion

FN is a benign lesion of unknown etiology,[1,5] but with possible association with trauma.[1,3,7] FN affects every body part, and most commonly[1,5] the upper extremity (48%), besides the trunk (20%), head and neck (17%), and lower extremity (15%).[1,2] Its occurrence is rare in hands and feet, and very rare in fingers.[8]

The most affected age group is 20–40 years; FN also affects both genders.[1,3] Symptoms such as numbness, paraesthesia and pain are infrequent, implying nervous compression.[2,3] Multiple lesions are rare.[1,7] The average diameter of the lesion is about 2 cm, and larger lesions are exceptional.[1,3,7]

Based on the anatomical location, FN can be divided into three types: subcutaneous, intramuscular, and fascial. Subcutaneous FN is three to 10 times more frequent.[1,2,4] The intramuscular type more perfectly simulates a neoplasm of soft tissues.[1] Intravascular and intradermal forms are rare subtypes.[2]

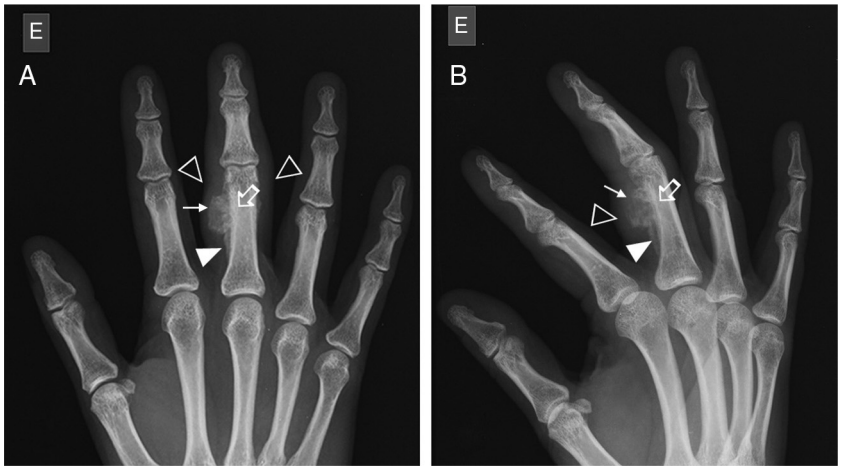

Fig. 1 – RX AP (A) and oblique (B), showing ossification of soft tissues of the radial and flexor diaphyseal faces of the proximal phalanx of the third chirodactyl, with irregular and partially defined contours (arrows), cortical erosion (open arrows) and lamellar periosteal reaction (arrowheads) proximal and distal to the node, and increased volume and density of the adjacent soft tissue (open arrowheads).