Ossifying fibromyxoid tumor (OFMT).
A case report of a rare atypical OFMT presented in a 56-year-old female patient

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INTRODUCTION

Ossifying fibromyxoid tumor (OFMT) is a rare soft tissue tumor originating from mesenchyme tissue. We report a case of an atypical OFMT presented in a female patient at her left cubital fossa, originating from the deep layers of the left brachialis muscle.

CASE PRESENTATION

A 56yo female patient presented to our clinic with a slow-growing mass located at ht cubital fossa of her left arm . Physical examination and imaging(CT, CTAngio,MRI) revealed an intramuscular tumor originating from the brachialis muscle and expanding to the anterior articular capsule over the tendon of the brachialis muscle and into the anterior upper part of the antibrachii growing circumferential at the bifurcation of the brachial artery and expanding to the median nerve. The patient underwent a clear-margin resection of the tumor. A well-defined, lobulated, grayish mass was identified in the cubital fossa. It arose from the deep layers of the cubital fossa, under the peripheral muscle mass of the brachialis muscle, penetrating the distal part of the brachialis tendon. The mass surrounded the anterior interosseous nerve and expanded on the medial nerve, under the radial artery bifurcation continuing circumferential to the radial and ulnar arteries.

The deeper part of the tumor arose from the anterior joint capsule of the elbow. The mass was excised en-bloc along with the anterior interosseous nerve and sent for histopathology. Histopathology combined with clinical and imaging studies gave the diagnosis of Atypical OFMT. Postoperatively the patient underwent radiation therapy and was in total remission without any recurrence of the tumor till 12m post-op. At 1y screening, lung CT revealed a small metastatic nodule at her left lung which was surgically excised and identified histopathologically as an AOFMT. 16m postoperatively the patient had a recurrence of the tumor at the initial surgical site with wider margins expanding to the ulnar part of her cubital fossa, shown in a new MRI.

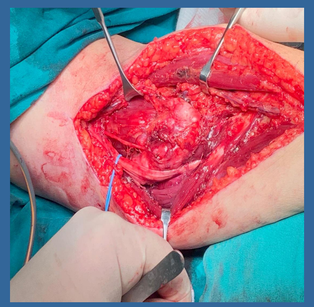

Figure 1. Median nerve and branch of AIN

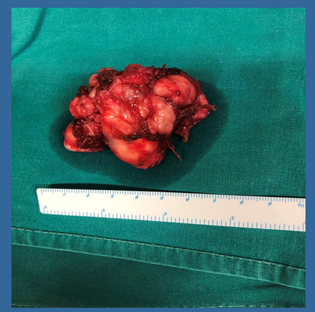

Figure 2. The mass after en bloc excision .

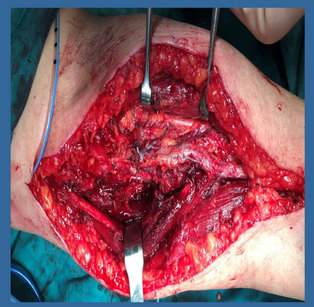

Figure 3. Median nerve after mass excision.

DISCUSSION

Ossifying fibromyxoid tumors are rare soft tissue neoplasms . Described back in 1989 by Enzinger for the first time in a series of 59 cases.Folpe and Weiss in 2003 proposed a risk-stratified classification for OFMT.In their classification there were 3 subtypes ,based on cellularity,mitotic activity and nuclear atypia . “Typical” OFMT with low nuclear grade , low cellularity, low mitotic rate and up to 4% rate of metastasis . “Malignant” subgroup was characterized by high nuclear grade , high cellularity , high mitotic activity, up to 60% of cases with local recurrence and/or metastasis. The “atypical” subgroup had different and distinct characteristics from the typical OFMT but not fulfilling the malignant criteria, therefore it had intermediate risk. Recent data suggest that atypical and malignant subgroups more likely represent a progression subtype of the typical OFMT .

CONCLUSIONS

OFMT of soft tissue is a rare neoplasm with intermediate differentiation and not yet fully known origin. Newer data suggest that the atypical and malignant subtypes proposed by Folpe and Weiss, are more likely the progression of typical OFMT. Complete excision of the tumor and long-term follow-up are needed for all patients with OFMT regardless of the “subtype”. More studies are needed in order to better understand the pathogenesis of OFMT and their progression and determine treatment protocols.

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