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Case Report

Cavernous Hemangioma of the Thenar Region of the Hand

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Abstract

Introduction: Hemangiomas represent the fourth most common tumor of the hand, after ganglions, giant cell tumors of the tendon sheath, and mucous cysts.

Case Report: Patient who consulted for a painful tumor in the thenar region of the right hand of 10 years of evolution. Complete tumor surgical resection was performed and said piece was sent for anatomopathological study.

Results: Taking into account the patient's history, the clinical presentation, the imaging studies, and the anatomopathological study, the findings are compatible with: "Cavernous hemangioma".

Discussion: Cavernous hemangiomas are blood-filled spaces surrounded by a characteristic flat endothelium. They are intramuscular and manifest as soft tissue masses. Surgical resection is the treatment of choice. The success of the surgery is not related to the size of the tumor, it depends above all on the nature of the hemangioma, if it is a well-circumscribed lesion or if it infiltrates neighboring tissues.

Conclusion: Cavernous hemangioma is benign in nature, but it can present as a serious condition that causes functional and morphological alterations, and pain of various characteristics due to the size they can reach, which requires surgical treatment.

Keywords: *Hemangioma; Hand*

Introduction

Hemangiomas represent the fourth most common tumor of the hand, after ganglions, giant cell tumors of the tendon sheath, and mucosal cysts [1]. Hemangioma is an abnormal proliferation of blood vessels that can occur in any vascularized tissue. The etiology is not well defined, it is an exaggerated angiogenesis, which produces an increase in cytokines (basic fibroblast growth factor and endothelial growth factor) and a decrease in angiogenesis inhibitors such as gamma interferon and necrosis factor. beta tumor [4]. Hemangiomas can be: 1) solitary, the most common, 2) multiple (hemangiomatosis) or 3) they can be associated with other pathological processes such as Kasabach-Merritt syndrome or associated with osteomalacia in Gorham syndrome [2].

Case Report

D.O masc. 60 years. Patient who consulted for a painful tumor in the thenar region of the right hand of 10 years of evolution (Figure 1) X-ray was performed where no bone lesions were evident (Figure 2) and MRI where a hypointense tumor lesion was evidenced on T1

e hyperintense on T2 and fat saturation, measuring 31 mm in transverse diameter x 26 mm in AP diameter x 42 mm in cephalocaudal diameter, well defined, in contact with the musculature of the thenar eminence, without signs of infiltration or peripheral edema, of heterogeneous internal structure and could be linked to a vascular origin (Figure 3). Complete tumor surgical resection was performed and said piece was sent for anatomopathological study.

Results

Pathology

Macroscopy: 3.5 x 2.5 x 0.9 cm tumor lesion. Dark brown in color, it is surrounded by a fine capsule. When cut, it is dark brown in color with whitish tracts, accompanied by two fragments smaller than 1 cm each (Figure 4).

Figure 1: *Palmar tumor of the hand.*

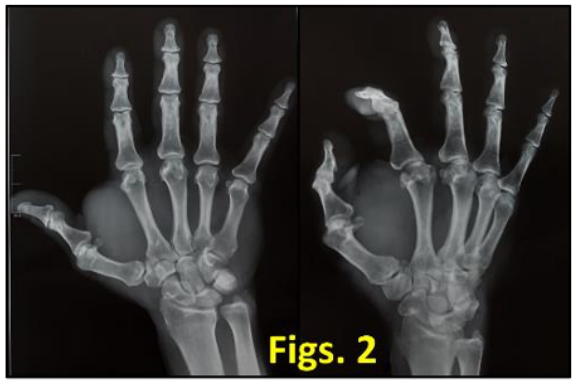

Figure 2: *X-rays of the hand.*

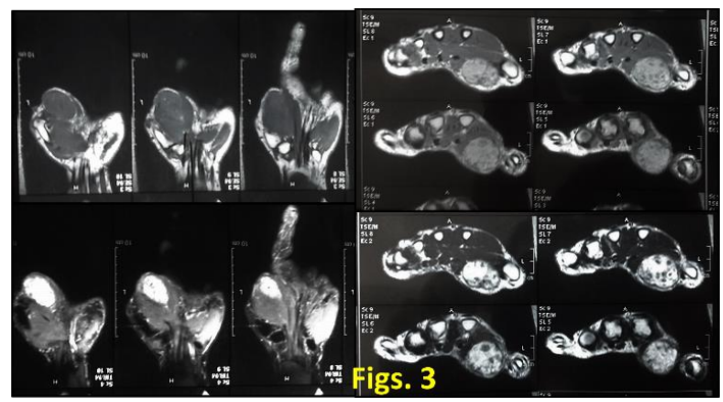

Figure 3: *T2 sequence MR images.*

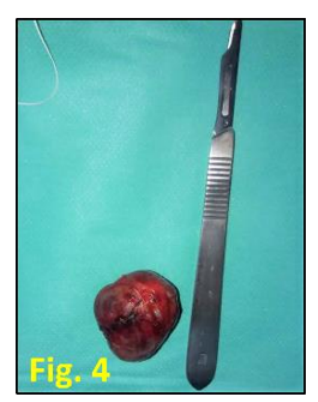

Figure 4: *Surgical piece.*

Microscopy: Histological sections show a population of large blood vessels lined by well-differentiated endothelium with abundant blood material. Some thrombosed. Fibrous and myxoid stroma with moderate lymphocytic infiltrate. It is surrounded by a fine fibrous capsule (Figure 5). Taking into account the patient's history, the clinical presentation, the imaging studies, and the anatomopathological study, the findings are compatible with: "Cavernous hemangioma". Weekly follow-up was carried out during the first postoperative month and once a month until the sixth month and the last clinical control a year and a half after surgery (Figure 6). The patient currently does not present pain, preserves the sensitivity, mobility and functionality of the affected hand.

Discussion

Cavernous hemangiomas are blood-filled spaces surrounded by a characteristic flat endothelium, which frequently include deep tissues unlike other hemangiomas. They are intramuscular and manifest as soft tissue masses. Calcified or organized thrombi with dystro-

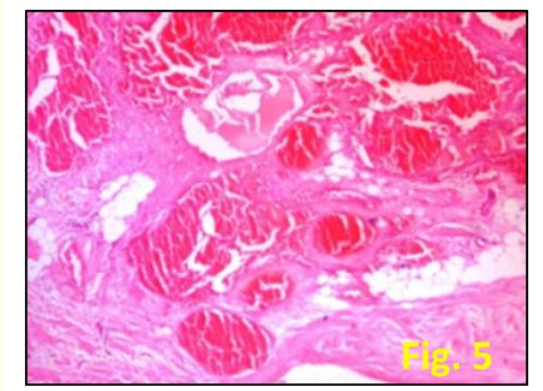

Figure 5: *Microscopic image.*

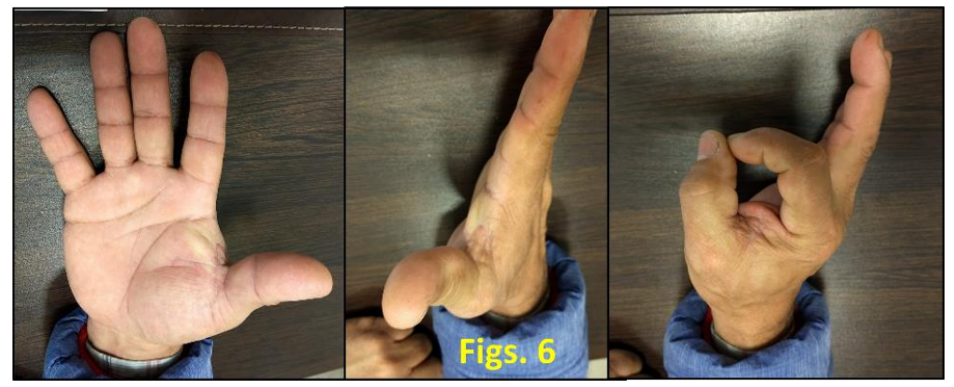

Figure 6: *Final clinical and functional control.*

phic mineralization called phleboliths may be found. They differ from those of the subcutaneous capillary type in that they do not involute. They are not associated with arteriovenous fistulas [5]. Most require surgical resection [3].

In plain radiographs it is common to observe bone changes such as erosion or destruction of the cortex by extrinsic compression, but only in 6% is it possible to see calcified phleboliths. The use of magnetic resonance imaging is recommended, which shows an increase in signal on T1 and T2 with enhancement of fibrous tissue, clots, and phleboliths. Angiography is useful to determine the extent of the tumor when the borders are not well defined. Laboratory tests are generally normal. The differential diagnosis of intramuscular hemangioma should be made with soft tissue sarcoma [6].

Surgical resection is the treatment of choice for non-involuting hemangiomas. Morris functionally classifies hemangiomas as involuting or non-involuting, with a ratio of 4:1. The success of the surgery is not related to the size of the tumor, it depends above all on the nature of the hemangioma, if it is a well-circumscribed lesion or if it infiltrates neighboring tissues [3].

Conclusion

Cavernous hemangioma is benign in nature, but it can present as a serious condition that causes functional and morphological alterations and pain of diverse characteristics due to the size they can reach, for which they require surgical treatment, after a detailed study of the vascular and nervous structures involved.

Disclosure

We declare that we have no financing or conflicts of interest.

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