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Glomus Tumor of the Posteromedial Face of the Wrist: A Case Report

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Abstract **Case Report**

Glomus tumors are very rare benign neuro-myoarterial proliferations**.** They are often located in the fingers in 35% of cases, the extra-digital location of glomus tumors are extremely rare and difficult to diagnose because of their atypical clinical signs and the absence of specific imaging, leading to a delay in diagnosis and treatment. Surgical treatment by complete removal of these tumours ensures a total disappearance of pain and therefore of their functional repercussions. No recurrence in 89.5%. We report a case of glomus tumor of the posteromedial aspect of the wrist, discovered by chance after surgical removal in a 71-year-old woman.

Key words: Glomus tumor; Wrist; Glomus.

INTRODUCTION

The glomus tumor is a rare benign tumor, first described by masson in 1924, called glomus [1]. It corresponds to a benign proliferation developed at the expense of the neuromyoarterial glomus of the dermis. It occurs most often in the fingers and represents less than 5% of soft tissue tumours of the hand [2]. The diagnosis is often made in the presence of a painful nodule of the extremities, but the diagnosis is certain on histology. Extra-digital forms are much rarer. We describe a case of a glomus tumor of the dorsal aspect of the wrist.

CLINICAL CASE

The patient was 71 years old, a housewife with no previous history. For 4 years, the patient presented with mild pain on the posteromedial aspect of the wrist, without any notion of trauma or triggering factor. The evolution was marked by the appearance of a swelling that progressively increased in volume, becoming very painful and annoying during daily activities, and a night-time discomfort.

On examination, there was a swelling of about 5 cm on the posteromedial aspect of the wrist on the ulnar side (Fig. 1). This swelling was extremely sensitive and painful to the touch, and did not allow any deep palpation. Moderate dysesthesia was noted on the ulnar edge of the hand and on the fifth finger.

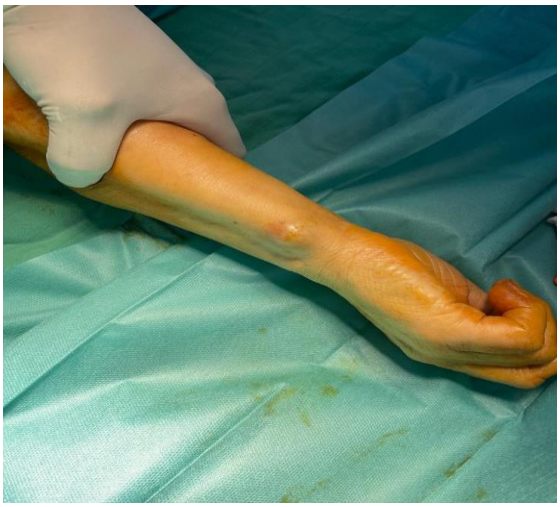

Fig-1: Clinical picture: unusual location of the glomus tumor

X-rays of the wrist, front and side, were normal. An ultrasound scan, limited by the pain, showed a hypoechoic oblong subcutaneous nodular formation, 18x8mm, well circumscribed, very richly vascularized with peripheral and central distribution and arterial and venous components, respecting the surrounding muscular and articular structures (Fig.2).

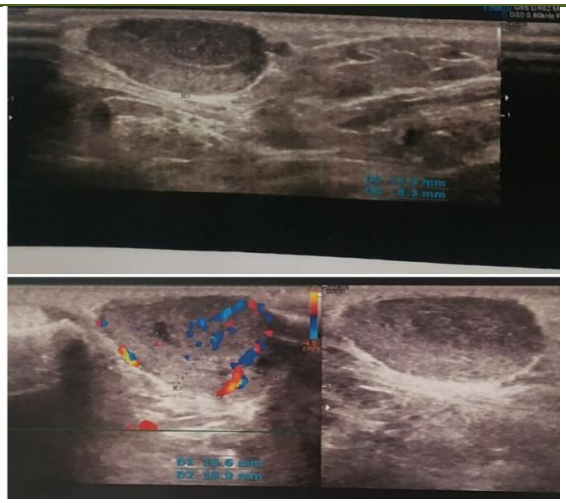

Fig-2: Ultrasound of the tumor

Surgical biopsy and excision was performed under local anesthesia. The tumor was easily cleavable, was in contact with the ulnar bundle, partially covered by the ulnar flexor tendon of the carpus, and had an unremarkable cystic appearance. (Fig. 3).

Anatomopathological examination of the entire operation confirmed the diagnosis (Fig. 4). The postoperative course was perfectly simple and the pain disappeared completely, immediately.

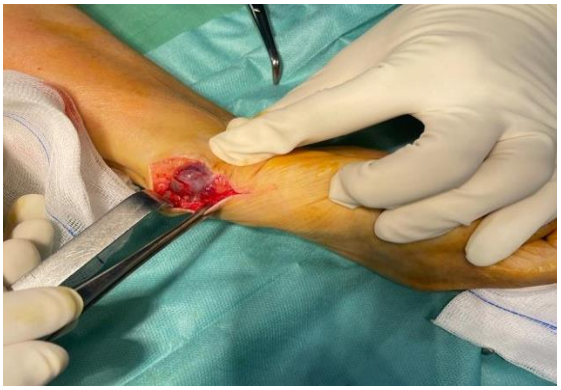

Fig-3: Intraoperative appearance of the glomus tumor

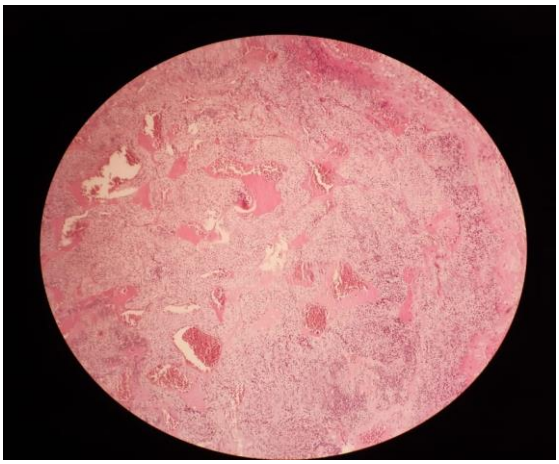

Fig-4: Histology blade

DISCUSSION

Glomus tumors are generally benign, and rare, lesions that develop from a neuromyo-vascular structure in the body, located at the dermal-hypodermal junction called the glomus [3].

Glomus tumors are most often found in the fingers, with subungual locations (65%) [4], while extra-digital involvement is rarer (11% according to Carrol *et al*. [5]). These forms can occur in the shoulder [6], buttock [2], para-achilian region [7], thigh [8], and foot [9, 10]. Deeper locations have been described in the viscera, but also in certain bones [11, 12], the radial nerve [13], the patellar ligament or the adipose ligament of the knee [14, 15], and the rotator cuff [16], and are generally larger than the digital forms, their size varying from 0.2 to 5 cm [17].

Clinically, the classic clinical triad of hypersensitivity to cold, tumor nodule that may cause purple staining of the integuments, and a painful trigger zone [18]. In our case, only the painful character was present. Prolonged exposure to cold was well tolerated, which is in agreement with the data in the literature [19, 20].

Complementary imaging examinations, even if they do not provide a diagnosis of certainty, can raise suspicion. Standard radiographs, except for rare bony [11, 12] and subungual forms, are normal. Ultrasound usually reveals a well-limited hypoechoic lesion more or less encapsulated [7, 13, 21], a hyperechoic lesion was found by Abela *et al*. [6].

The diagnosis of certainty is based mainly on histology. Three types of glomus tumors exist: glomangioma and glomangiomyoma and Solid glomus tumors this is the most frequent type, they are well limited and the glomus cells are organized in nests and epithelioid trabeculae around the faint vascular lumens, obliterated by the clash of their endothelium [22-23].

In all cases, the surgical treatment is based on complete removal, which makes it possible to obtain, as in our case, a total disappearance of the pain and thus of its functional repercussions. No recurrence in 89.5% of cases [19].

CONCLUSION

The glomus tumor of the forearm is an exceptional extra-digital form. It is characterized by its hyperalgesic symptomatology with nocturnal discomfort, and like all extradigital glomus tumors, by its latency in diagnosis. The diagnosis is made only after anatomopathological examination of the surgical specimen. The treatment is surgical with a good evolution without recurrence in nearly 90% of cases.

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