

Case report of glomus tumor in rare location

Introduction

Glomus tumor is a benign neoplasm composed by modified smooth muscle cells, mainly found in arteriovenous anastomoses of the extremities, called glomus cells. They account for between 1-5% of all soft tissue tumors of the hands. They are more prevalent in adult women, around the 3rd to 5th decade of life and are considered a rare entity in childhood. Clinically, they appear as tiny, rarely palpable pinkish-blue solitary nodules, which make clinical examination insufficient to determine their precise location. The quirodactyls occur in up to 75% of the cases, while non unguis manifestation is rare. The classic triad of symptoms, paroxysmal pain, localized hyperalgesia and sensitivity to cold temperature are important diagnostic features in more than 90% of patients. Clinical maneuvers that assess pain and sensitivity associated with image exams may be performed at the diagnostic attempt. Histopathological examination becomes the gold standard in the identification of characteristic glomus cells because they are polygonal, with small and regular core that can be in solid clusters or in regularly oriented cellular cords. Among the differential diagnoses we must consider painful or bluish/reddish lesions: dermatofibromas, angioliomas, implantation cysts, spiroadenomas, subungual horns, neuromas, foreign bodies, leiomyoma, blue nevi and hematomas. The treatment of choice is surgical excision, and cases of relapse are frequent.

Case report

A 65-year-old male patient reports that two years ago he presented an extremely painful lesion on the back of the left arm. The dermatological examination presented nodulation of approximately 2cm of fibro elastic consistency and slightly bluish coloration (Figures 1 & 2). He had palpation pain and positive Love test. Incision biopsy revealed benign mesenchymal neoplasia in the reticular dermis characterized by the proliferation of typical glomus cells, forming blocks and cords arranged around blood vessels also proliferated with typical endothelial lining suggestive of glomus tumor (Figures 3 & 4). Subsequently, the surgical margins were enlarged with complete tumor resection. Patient evolved with symptomatic total remission of the condition.^{1,2}



Figure 1 Nodulation of approximately 2cm of fibroelastic consistency and slightly bluish coloration on the back of the left arm.

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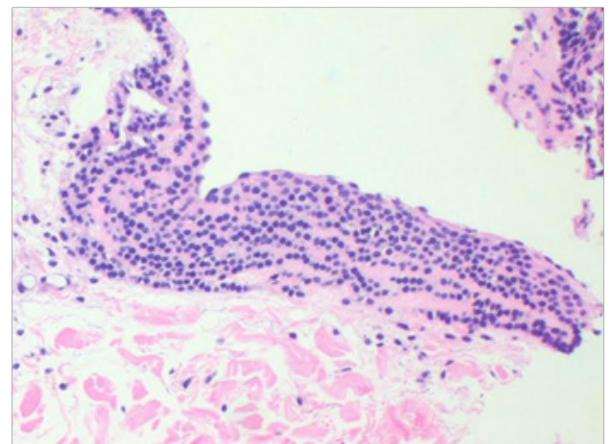


Figure 2 Proliferation of typical glomus cells in cords and blocks in smaller increase.

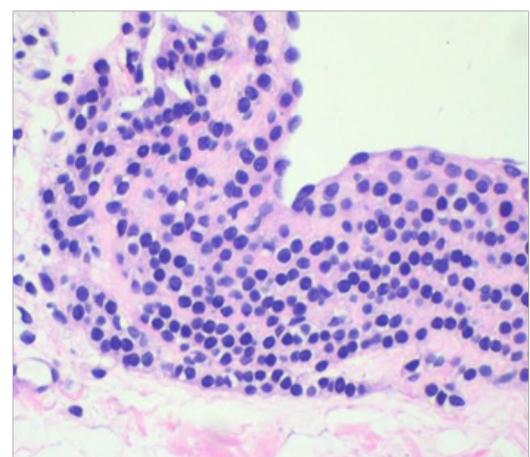


Figure 3 Proliferation of typical glomus cells in cords and blocks in greater increase.

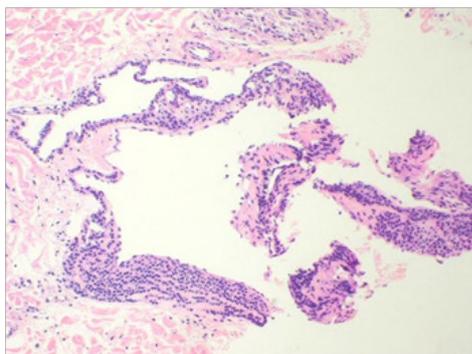


Figure 4 Proliferation of typical glomus cells forming blocks and strands arranged around the blood vessels.

Discussion

Subungual glomus tumor is an uncommon disease in dermatological practice, being considered a rare benign vascular tumor. There are two types described: the solitary and the multiple. The most frequent is the solitary type, which affects more female patients, usually located in the quirodactyls, preferably in the distal phalanges. The location outside the nail bed is very rare, with few cases reported in the literature that affected the scapular region, flanks, intergluteal, forearm, arm, thigh and legs. Multiple tumors are less common and, unlike solitary tumors, are determined by autosomal dominant inheritance and are also referred to as glomangiomas. It has a variable evolution time between days and decades, being a difficult tumor to diagnose due to its rarity, constituting only 2% of all tumors found in the hands, which would justify the long delay before its diagnosis and the therapy to be established. Among the clinical maneuvers that aid in the diagnosis we can mention: Love pin test that allows the detection of localized pain in the lesion, being positive if the patient withdraws the finger as a consequence of the pain; Hildreth test, which consists of the repetition of the previous test after tourniquet installation; in which case the pain is absent; Cold sensitivity test which increases the intensity of pain with the decrease in temperature; Transillumination and Dermatoscopy of the nail plate. Image exams aid in the exact location of the tumor, the ultrasound shows commonly hypoechogenic lesions up to 3mm in diameter, but it is an operator-dependent exam. Magnetic resonance exam is more

sensitive and shows the extent of the lesion. Its disadvantage, besides cost, is the low specificity. Histopathological examination may show a neoplasm composed of polygonal cells, with small and regular core, sometimes in solid clusters, or in regularly oriented cellular cords. From the neoplastic cells, proliferation of dilated and congested blood capillaries can be observed. In the differential diagnosis of the glomus tumor, all cutaneous tumors with pain as a symptom must be included: leiomyoma, eccrine spiradenoma, neuroma, dermatofibroma, angioliopoma, neurilemoma, endometrioma, granulosa cell tumor and angioecrine hamartoma. Although the glomus tumor usually lies at the digital extremity, it may also be located in extradigital areas. We report in this work a case of unusual location of the glomus tumor, on the back of the arm with prolonged evolution and characteristic painful symptomatology. This correspondence aims to emphasize the importance of the inclusion of the glomus tumor among the possibilities of differential diagnosis of extradigital painful nodules.³⁻⁵

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Conflict of interest

The author declares no conflict of interest.

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