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Case Report

Glomus Tumors: A Frequent Cause of Finger Pain

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Abstract

There are numerous reasons for one to have finger pain. Coming to a definitive diagnosis can sometimes be difficult. Glomus tumors frequently go undiagnosed because many physicians and healthcare providers are not aware of this diagnosis. Awareness of glomus tumors and the impact they have on someone's quality of life should be more abundant in healthcare. If these patients were able to seek proper treatment sooner, they could avoid suffering for years.

Keywords: Glomus Tumors; Finger Pain; Patient; Healthcare.

Introduction

A glomus is a normal part of the human body. Glomus bodies are responsible for regulating blood flow and aiding in thermoregulation in the digits [1]. However, the cause of tumor formation in the glomus body is widely unknown. Although glomus tumors can form anywhere in the body, 65% form in the fingertips [2]. Middle-aged women are predisposed to these tumors [3].

These tumors can be extremely painful and a nuisance to one's everyday life. The three most common symptoms for glomus tumors are pin-pointed tenderness, cold intolerance, and severe pain [1-4]. Advanced imaging can sometimes be useful in detecting these lesions.

MRI has been shown to pick up on 82-90% of glomus tumors [2]. Ultrasound can sometimes be used to detect these tumors as well [2,4]. Radiographs are largely not useful in generating a diagnosis. However, bony erosion can be evident in the event of a very large mass [1].

Case Presentation

A 43-year-old female presented to the office with complaints of pain over the distal phalanx of her left index finger. She reported the pain had been there for about 7-10 years. She had sought medical treatment previously but had no clear diagnosis. She had various primary care physicians that had no explanation of her pain. Finally, a dermatologist referred her to an upper extremity specialist. Radiographs taken in the office revealed large cortical erosion of the

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distal phalanx with evidence of a soft tissue mass (Figure 1, a and b). Upon examination, she had extreme, pin-pointed tenderness over the proximal portion of her nailbed with a bulbous appearance to the distal phalanx that was asymmetric. She also reported cold intolerance to that digit.

Figure 1: a) Large cortical erosion of the distal phalanx. b) A soft tissue mass.

Based on her history and clinical examination her suspected diagnosis was a glomus tumor. Of all the soft tissue tumors that occur in the hand, glomus tumors only account for 1-5% [3]. Therefore, there are other diagnoses to keep in mind that could have a similar presentation. Inclusion cyst, leiomyoma, eccrine spiradenoma, schwannoma, and intraosseous mucous cyst are a few. Given the evidence of bony erosion, enchondroma, chronic osteomyelitis, sarcoidosis, subungual melanoma, and osteoid osteoma could also be likely. Therefore, definitive diagnosis would require histologic investigation. However, glomus tumor was the suggested diagnosis given the symptoms and presentation.

Treatment options include benign neglect or surgical excision. The patient elected for excision. During surgery, a lateral incision was made on the radial aspect of the distal phalanx. The soft tissue was carefully dissected away until the mass was reached. The mass was carefully removed, measuring 0.8 x 0.6 x 0.7cm (Figure 2).

Figure 2: Removal of mass.

The mass was subsequently sent to pathology for analysis. To attempt to rectify the bone loss of the distal phalanx, the phalanx was first curetted and then bone putty was placed in the defect to encourage bone growth. The pathology report was obtained later which identified the mass as a glomus tumor.

Discussion

Although these tumors are small, they pose great difficulty for patients in their everyday lives. This patient had lived with extreme pain in her index finger for almost a decade before she had relief and an answer for why she was experiencing pain. With a simple procedure these patients can get back to their normal activities. The biggest threat to helping these patients is an accurate and timely diagnosis. Therefore, it is important for more providers to be aware of this condition.

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