

## Subungal Glomus Tumour of Middle Finger

<sup>1\*</sup>Bhattacharyya T D, <sup>2</sup>Bharali Tridip, <sup>3</sup>Dutta Anshuman, <sup>4</sup>Das Partha Pratim

Corresponding Author: \*Bhattacharyya T D

### I. Introduction

Glomus tumors are rare benign lesions, characterized by hamartomatous proliferation originated in the neuromyoarterial glomus bodies. The most common site for glomus tumor development is the distal phalanx, particularly beneath the nails; however, this tumor can be found anywhere on the body. Glomus bodies are highly specialized arteriovenous anastomoses responsible for the thermoregulation by regulating the skin. These bodies can be found in the reticular layer of the dermis throughout the body although they are most numerous in digits, hand palms and feet soles. Glomus tumor was first described by Wood as early as 1821, but the characteristic histological description was given by Masson. Typically, a glomus tumor of the finger presents with a triad of localized tenderness, severe paroxysmal pain (out of proportion to size) and sensitivity to cold. They have a benign clinical course. The clinical signs are not always obvious and, considering the small dimensions of these lesions, imaging studies are required to elucidate the diagnosis and, above all, to aid in the therapeutic/surgical planning. Magnetic resonance imaging (MRI) has been reported to be the most useful modality in this regard and can pick highly vascular lesions as small as 2 mm. A complete surgical excision is the only effective treatment modality. Due to the nonspecific nature of symptoms, subjective variation in presentation and small size of the lesion, it is not uncommon for patients to remain undiagnosed or misdiagnosed for many years. So, here we report a case of subungual glomus tumor.

### II. Case report

A 52-year-old man presented with a 5 year history of a very painful right middle finger. He denied any history of injury and reported new hypersensitivity to cold of the same finger. Initially, the pain was vague in nature and later became intense. He also reported exacerbations of symptoms during rainy and winter seasons. He noticed colour change of nail 2 years back, which gradually progressed to involve the whole length of nail. History of severe pain even on minor trauma was also there. No other significant medical or surgical history was recorded. On examination, he had severe tenderness at the nail fold, color changes in the nail plate and in the proximal nail fold were noted. Love's test was found to be positive. Patient was investigated. His routine blood and urine investigations were within normal limits. Radiographic examination of the patient did not reveal any abnormalities. MRI of the hand was done. In MRI, a solid, well defined nodular lesion is observed with low signal intensity in relation to the dermis of the nail bed on T1-weighted images, and high signal intensity on T2-weighted images, with homogeneous contrast-enhancement. Surgical exploration was done under digital block. A semi translucent mass measuring 0.5 x 0.5 cm was excised. Post operative period was uneventful. Patient was followed up regularly. Histopathological examination of the excised tissue showed blood vessels lined by endothelial cells surrounded by epithelioid cells which is consistent with the diagnosis of glomus tumour. The patient was relieved of the previous pain post operatively.



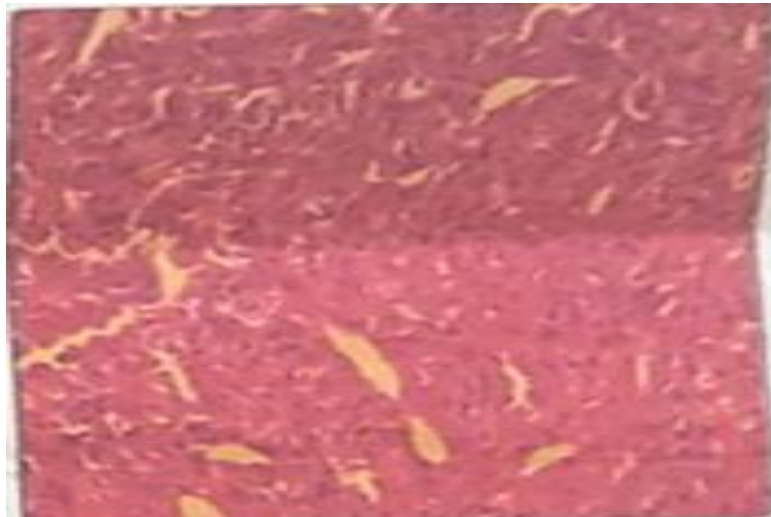
Clinical Photo



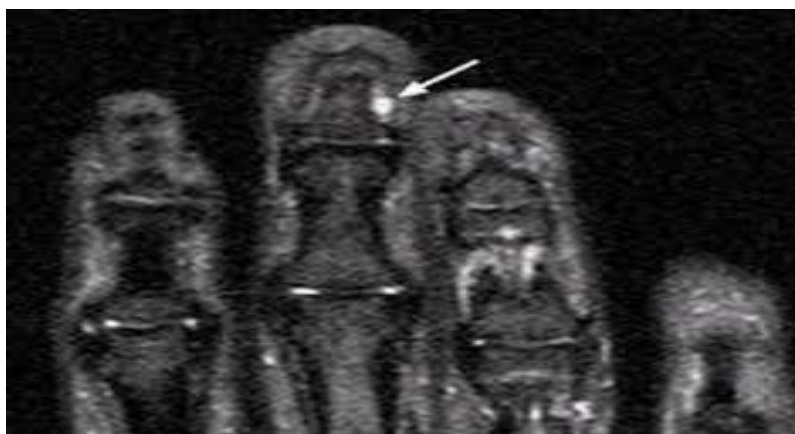
Intraoperative Photo



Excised Tumour



Blood Vessels Lined By Endothelial Cells Surrounded By Epithelioid Cell



Mri Image

### **III. Discussion**

Glomus tumor is a tumor arising from a neuromyoarterial glomus and the most common site of glomus tumor is fingers. Occasionally, in subungual glomus tumor, nail deformity and change of color beneath the nail on clinical findings and a scalloped defect of the distal phalanx on the radiograph are observed. In our case a clinical diagnosis was made. There were no radiological abnormalities seen in plain xrays of the affected

phalanx. The tumor was treated by surgical excision by a incision along the medial margin of nail and elevation of the nail plate. Post operatively the patient was relieved of the pain and cold hypersensitivity. Hence glomus tumour can easily be cured if it is diagnosed correctly.

#### **Reference**

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