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A CASE REPORT: GLOMANGIOMA OF FINGER TIP

Radio-Diagnosis

Dr Hijas Mukthar Assistant Professor in Radiology, Travancore medical college, Kollam.

Dr Faneesha Pokkakillath Shakeer Junior resident in radiology, Travancore Medical College, Kollam

KEYWORDS

INTRODUCTION:

Glomus tumour (also called glomangioma and glomangiomyoma) is mesenchymal neoplasms composed of cells resembling the modified smooth muscle cells of the normal glomus body. This tumour is rare accounting for less than 2% of soft tissue tumour with a similar gender distribution and with a predilection for young adults. The vast majority occur in skin or superficial soft tissue in the distal extremities associated with a long history of pain. Rarely (fewer than 40 cases reported in literature), glomus tumours are morphologically considered malignant when the tumour show marked nuclear atypia and any level of mitotic activity or atypical mitotic figures[3].

"Typical" glomus tumours are benign neoplasms that require only simple excision.

The plain radiographs are typically normal, although in longer standing lesions bony erosions can be seen. Although ultrasound has been advocated to aid in the diagnosis of glomus tumour, it is operator and techniques dependent[2]. Magnetic Resonance has become the imaging modality of choice when evaluating soft tissue masses. However, MRI descriptions of glomus tumours are rare in the English literature[4,5].

Malignant cases are highly aggressive with metastases and death from disease in up to 40% patients.

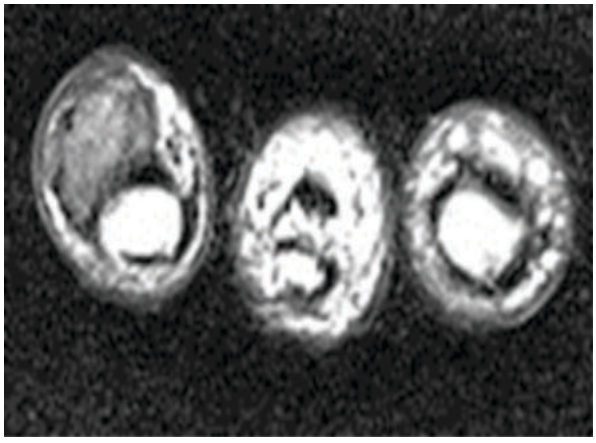
Case Report:

A 58-year-old male patient presented with swelling in the right ring finger since 8 years. Patient complaints of recent onset of pain and sensitive to cold temperature and touch. Radiograph and laboratory parameters were normal.

The patient was advised MRI right ring finger. A well defined 20 x 11 x 15mm lesion noted in the subungual region of right ring finger showing T1 hypointense signal, hyperintense PDF and post contrast enhancement and diagnosed with glomus tumor.

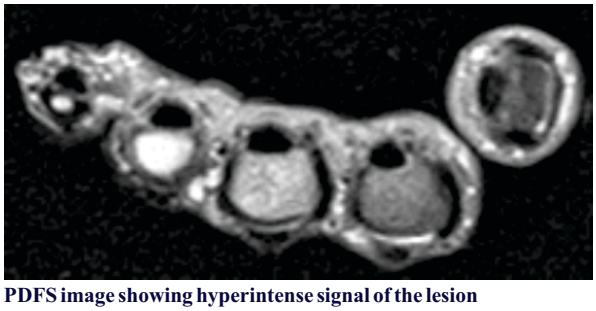
The Patient Underwent Surgical Resection.

MRI Findings:



T1 weighted MRI shows well defined hypointense area noted in in distal phalanx of right ring finger in lateral and posterior aspect.

T2 weighted MRI shows low signal intensity lesion noted in distal phalanx of right ring finger in lateral and posterior aspect.



PDFS image showing hyperintense signal of the lesion

DISCUSSION:

The glomus tumour is a rare benign neoplasm that arises from the neuroarterial structure called a glomus body[1], which accounts for 1 % to 4.5 % of tumours in the hand. They are believed to function in thermal regulation. The average age at presentation is from 30 to 50 years of age, although can occur at any age[1].

The classic triad of moderate pain, temperature sensitivity and point tenderness is inconsistently present[6].

On plain radiograph, the tumour is difficult to identify, and rarely can be seen as a subtle soft tissue density and may show a marginated osseous erosion or thinning of the adjacent cortical bone. On ultrasound, subungual hypoechoic nodular lesion at the region of maximum tenderness and shows hypervascularity on Doppler tends to be prominent.On MRI,T1: low to intermediate signal, T1 C+ (Gd): shows avid contrast enhancement (usually uniform) due to high vascularity and T2: intense high signal .

Useful distinguishing features on MR are its characteristic location, pressure erosion of underlying bone, very high and homogeneous signal on T2w sequence, low signal on T1w sequence and intense enhancement [7]. Although these MR signal characteristics can be associated with any vascular tumour, the typical subungual location and its small size should lead one to suspect glomus tumour in most cases. T2w-FS and post-contrast sequences are very helpful in delineating small tumours. The lesion is typically painful, and surgery is the treatment of choice for symptom relief and histological confirmation.

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