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Lipoma of the Ring Finger: A Case Report

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Abstract

Lipomas are benign tumor found in areas of abundant adipose tissue. They can be found anywhere in the body but are uncommon in hands and even rare in fingers. We report a case of lipoma in 71-year-old female who presented to us with a painless swelling of finger. Diagnosis was confirmed by clinical, radiological and pathological examination. Surgical excision was done. Lipoma should always be kept in mind as differential diagnosis in a finger swelling. Complete surgical excision is required to prevent the recurrence.

Keywords: Lipoma; Finger swelling; Complete surgical excision

Introduction

Lipomas are benign, mesenchymal neoplasms occurring in areas of abundant adipose tissue [1]. They can be found anywhere in the body with approximately 15-20 % located in head and neck region and the majority of rest in the shoulder and back [2]. They are not very common in the hand and those involving the fingers are very rare, with incidence of 1% [3]. Majority of lipoma of hand is noted in the index finger. We present a case of lipoma over proximal phalanx of ring finger of right hand in a 71-year-old female.

Case Presentation

A 71-year-old female presented in our institution with swelling in the proximal phalange of ring finger of her right hand since last two years. Initially it was very small in size, then the swelling increased progressively to its present size. There was no history of trauma. On examination, the swelling of size (3x2) cm, was present on the dorsal aspect of right ring finger over proximal phalanx. The swelling was non-tender, soft, mobile in all directions. The skin overlying the swelling was normal. The terminal flexion of the both Proximal interphalangeal joint (PIP) and Distal interphalangeal joint (DIP) joint was restricted. There was no neurovascular deficit in the ring finger.

X-rays hand showed increase in the soft tissue shadow over ring finger without any bony involvement. FNAC of the swelling was suggestive of lipoma. The patient was planned for surgical excision.

Figure 1: A transverse incision was given over the swelling.

The patient was positioned supine and was given digital nerve block in the affected finger. A transverse incision was given over the swelling (Figure 1). The neurovascular structure was identified and preserved carefully. Complete excision of the lipoma was done

(Figure 2). Post-operative period was uneventful. Biopsy of the lesion showed lipoma. Patient is asymptomatic after one year of follow up.

Figure 2: Complete excision of the lipoma.

Discussion

Lipomas are the most common soft-tissue tumor composed of adipose tissue [4]. Although the histological appearance resembles mature adipose tissue, Lipomas are not derived from mature adipocytes but rather from mesenchymal preadipocytes [5].

In the hand, these tumors may be superficial; arising from the subcutaneous tissues and or less commonly may be subfascial, arising deep in the palm within the Guyon canal, the carpal tunnel or the deep palmar space [6,7] and generally being of bigger size [8]. In some cases, they may arise from juxta-articular regions or adjacent to the periosteum (parosteal lipoma), they may erode into the bone and cause focal cortical hyperostoses, osseous projection, subperiosteal new bone formation and bowing of the bone [9,10].

Clinically, lipomas of hand are asymptomatic, soft, non-tender, mobile mass causing only mechanical restriction to joint movement if they are juxta-articular. They can cause pain and distal sensory changes and motor weakness if they are present around neuro vascular structures [10].

Radiological evaluation is diagnostic in up to 71% of cases [11]. In 37-49% of cases CT or MR images reveal intrinsic thin septa (<2 mm), a sign that is considered almost pathognomonic for the diagnosis of lipoma [12].

In our case the lipoma occurred in eight decades as opposed to fifth and sixth decade where it commonly occurs. We made differential diagnosis of lipoma along with GCT tendon sheath, Ganglion cyst, Xanthomas, Myxomas. The diagnosis of lipoma was confirmed by Biopsy report. Complete surgical excision is the treatment of choice as was done in our case. Most of the cases of lipomas have been reported in index finger as opposed to ring finger in our case.

Conclusion

The lipoma in hand is uncommon and even rare in fingers. This should always be kept in mind as a differential diagnosis of swellings in hand and fingers like Ganglion, Mucous cysts, Inclusion epidermoid cyst, Pyogenic granuloma, Synovial giant cell tumour of the joint or tendon sheath, Rheumatoid nodules, Gout. For early diagnosis and optimal management, complete radiological examination including MRI of the affected hand should be done to differentiate lipoma from other swellings. However, in developing countries ultrasound along with X rays and FNAC is used to detect lipoma where MRI facility is not easily available. These tests are also used to exclude other differential diagnosis and planning to be done accordingly. Complete resection of lipoma should be done as they tend to recur in around 5% cases.

Consent

A written consent from the patient has been taken for publishing the report.

Competing Interests

The authors declare that they have no competing interests.

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