Case report: A rare presentation of Giant palmar lipoma

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ABSTRACT

INTRODUCTION: Lipomas are ubiquitous in human body but a rare presentation in the deep palmar space. The objective of this article is to highlight the key points in the diagnosis and precautions to be taken during surgery so that any untoward complication can be avoided.

CASE PRESENTATION: This is a case report of a 55-year-old female housewife presented with a long standing large painless swelling in the right palm. High resolution ultrasound suggested the diagnosis of lipoma. Surgical excision was done taking care not to injure the vital stuctures of the hand. Postoperative course was uneventful and the patient was able to perform her daily activities without any difficulty or pain.

CONCLUSION: Therefore, one should be cautious while dealing with deep palmar lipomas. Palmar lipomas usually do not cause numbness or weakness of the hand. They can be deceptively large and extensive and one should be careful during the work up. Simple imaging such as ultrasound is useful for a superficially located lipoma. MRI, however, provides correct diagnosis in about 94% of cases. Vital structures should be identified and preserved. With careful surgical technique the complications can be prevented.

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1. Introduction

Lipomas are common tumors that arise from mesenchymal fibrofatty tissue. They are the single most common soft tissue tumor [1] and can involve any part of the body. The most common clinical presentation is a gradually progressive, soft and non-tender mass. However, their presentation in the hand is infrequent. Some lipomas can grow considerably and their presence in the hand is associated with a variety of symptoms. Giant lipomas exhibit a size of more than 5 cm. We present a case report of a massive painless lipoma of the deep palmar space. This case report was prepared according to the CARE guidelines, which aim for consensus-based, clinical case reporting guideline development [2].

2. Case report

2.1. Clinical history

A 55 year old housewife presented with a one year history of an almost painless swelling over her right palm. There was no significant past, drug & family history. She first noticed the swelling in the central aspect of her palm which gradually increased in size over a period of one year. She had occasional pain while doing her household work and difficulty in holding any object and since she was a right handed person, was facing difficulties in her daily activities. She had no tingling sensation or numbness over the palm or the fingers. On clinical examination, the swelling started from the wrist crease and involved both the thenar and the hypothenar region, extending up to the distal palmar crease (Fig. 1). It also encroached into the first web space. On palpating the swelling, it was non-tender, soft and non-compressible with ill-defined margins and smooth surface. Patient was able to flex and extend her fingers and thumb without any restriction and there was no sensory loss. She already had a high resolution ultrasonography done for her swelling which was suggestive of lipoma. Our patient was poor and could not afford MRI. Hence, based on the clinical and radiological examination, we made a provisional diagnosis of lipoma and surgical excision was planned.

2.2. Operative procedure

Surgery was done under regional anaesthesia. With the arm tourniquet inflated, an incision was given over the thenar crease as the swelling was most prominent in that region. Distally, the incision extended along the proximal palmar crease and dissection started from proximal to distal in the subfacial plane. A multilobulated, well encapsulated, yellowish mass was seen which was delineated on all sides. Proximally it extended into the carpal tunnel and hence it was also released. The lesion was carefully separated from the overlying palmar fascia and also from the tendon sheaths. During dissection, all the neurovascular structures were identified and preserved (Figs. 2 and 3). In the first web space, it was sepa-

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rated from the adductor pollicis muscle. The lesion was removed en masse and sent for histo-pathological examination. Tourniquet was deflated and after achieving adequate hemostasis, skin was closed and a compressive dressing was applied.

2.3. Post-operative course

In the postoperative period, the patient did not complaints of any restriction in the finger movements or any sensory loss. After removal of the sutures, she was discharged on physiotherapy. Histopathology confirmed the lesion to be lipoma. Follow up was done at 2 weeks, 4 weeks and then on monthly basis for another 3 months.

3. Discussion

Lipomas consist of mature fat cells, which may occur in subcutaneous, inter-muscular or intra-muscular locations [3]. They generally progress slowly and painfully which explains their often large size at diagnosis, particularly if located deeply. Although there is a good amount of fat in the palm region, the commonest tumor of the body that arises in the fat, that is lipoma, is only rarely seen at this location [4].

Soft tissue lipomas are categorized by anatomic location as either superficial (subcutaneous) or deep and their contour is determined by the confines of the space the tumor occupies. Fat tumors however have the ability to insinuate themselves into small recesses and thus produce tumors of any size or shape, infiltrating spaces not tightly guarded by protecting sheaths as fascia. This is especially true with tumors of the hand where lipomas occur in various anatomic locations within it. Superficial lipomas arise in the subcutaneous tissues while deep lipomas arise in the Guyon’s canal, in the carpal tunnel, and the deep palmar space [3]. Lipoma in the hand typically presents as painless swelling and usually attains a large size by the time patient seeks medical attention. The deep-embedded and intramuscular lipomas are less defined, considerably larger in size, and much less common than their superficial counterparts due to the thick palmar fascia obscuring the true size and extent of these tumors. Consequently, the required surgery may be more extensive than originally planned, due to the anatomy usually being distorted. Good results can be obtained with surgical treatment, but, as with large tumors located elsewhere, these require a thorough preoperative assessment [5]. Ultrasound is diagnostic in most of the cases but the accuracy of MRI is 94% and also delineates the anatomical extension of the lesion. Diagnosis of a lipoma with US should be made carefully because angiolipomas and low-grade liposarcomas containing both benign and malignant fat tissue may mimic lipomas. The main advantage of MRI over US is its ability to display the lesion in relation to its surroundings [6].

Surgical excision is usually curative and chances of recurrence are minimal. Johnson et al. advised that any soft tissue tumor lump, which is greater than 5 cm, should be considered as malignant until proved otherwise [7]. But in cases of lipomas, they can be of giant size without any malignant transformation.

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Authors contribution

1. Veena Singh – Writing the paper.
2. Vijay Kumar – Study concept & design.
3. Arun K singh – Study concept & design.

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