

Recurrent, Giant Interpectoral Lipoma: A Case Report

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Abstract

Introduction: Intermuscular lipomas constitute a small percentage of adipocytic neoplasms unlike the subcutaneous lipomas which are fairly common. The recurrence rate of intermuscular lipomas is 1%.

Case Report: A 58-year old man presented to the breast surgery clinic with a progressively increasing right breast prominence. About 7 years ago he had undergone excision of a right breast mass, which turned out to be an interpectoral lipoma. His MRI was done, and it showed a lipomatous mass confined to the right interpectoral region suggestive of recurrence of the lipoma. An ultrasound guided core biopsy excluded sarcoma. The mass was completely excised surgically. Final pathology confirmed a recurrent interpectoral lipoma.

Conclusion: Cases of interpectoral lipomas have been reported in the literature. However, to the best of our knowledge, this is the first case report of a giant recurrent lipoma between the pectoralis major and minor muscles. Caution is required in order to rule out liposarcoma in recurrent cases prior to re-excision.

Keywords: Recurrent; Interpectoral; Intermuscular; Lipoma

Introduction

Lipomas are the most common type of benign soft tissue mesenchymal tumours which mostly occur subcutaneously [1]. Sometimes they may arise in a deep location such as within a muscle or in between two muscles, termed as intramuscular and intermuscular lipomas respectively [1-3]. These deep-seated types draw attention because of their location and their tendency to recur, which may mimic a liposarcoma [1]. Intramuscular lipomas comprise 1.8% of adipocytic tumours, and intermuscular lipomas are even less common constituting only 0.3% of all adipocytic tumours [2]. The recurrence rate of intermuscular lipomas is 1% [3].

Intermuscular lipomas of the chest wall have been rarely reported in the literature and to the best of our knowledge there has been no reported case of a recurrent lipoma between the pectoralis major and minor muscles. We report the case of a recurrent giant chest wall lipoma in the interpectoral region.

Case Report

A 58-year old, otherwise healthy man presented to the breast surgery clinic with an eight month history of progressively increasing right breast prominence and anterior protrusion. In 2008 he had similar complaints and was found to have an interpectoral lipomatous mass in the same location. It was excised at an outside institution and pathology confirmed it to be a lipoma.

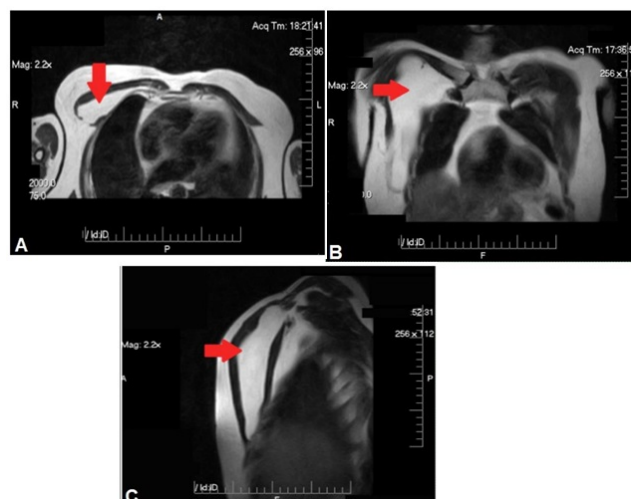


Figure 1: MRI chest (A) axial, (B) coronal, and (C) sagittal views showing right sided, recurrent, interpectoral lipoma (marked with arrow) [2015].

Examination in our clinic revealed an enlarged right breast with the nipple more anterior in profile due to anterior displacement of the entire right breast. No lump was palpable

on the chest wall or within the breast. His MRI showed a large $18.9 \times 10.1 \times 4.0$ cm lipomatous mass interposed between the right pectoralis major and minor muscles, extending laterally towards the axilla and causing significant anterior displacement of the pectoralis major muscle. There was no extension across the midline to the left side or any intrathoracic extension (Figure 1). Radiologically these findings were similar to the previous MRI findings of 2008 (Figure 2) and thought to be likely due to a lipoma. However, due to the recurrent nature of the mass, liposarcoma needed to be excluded. Ultrasound guided core needle biopsy of this mass was performed with a 14 G biopsy needle, and it was confirmed to be a fibroadipose tissue fragment consistent with a lipomatous tumour. The provisional diagnosis of recurrent giant chest wall lipoma was made, and a complete excision under general anesthesia was planned.



Figure 2: MRI chest axial showing right sided, interpectoral lipoma (marked with arrow) [2008].



Figure 3: Macroscopic appearance of interpectoral lipoma.

Previous axillary incision was used for the procedure and the entire lipomatous mass was completely excised from between the pectoralis major and pectoralis minor muscles. Grossly the specimen measured $15 \times 9 \times 3$ cm (Figure 3) and histology confirmed the diagnosis of a lipoma (Figure 4). Patient remained stable and was discharged on first post-operative day with no complaints on his post-operative visit. He did not pursue his

annual follow-up but in a phone call about a year after excision he denied any recurrent symptoms.

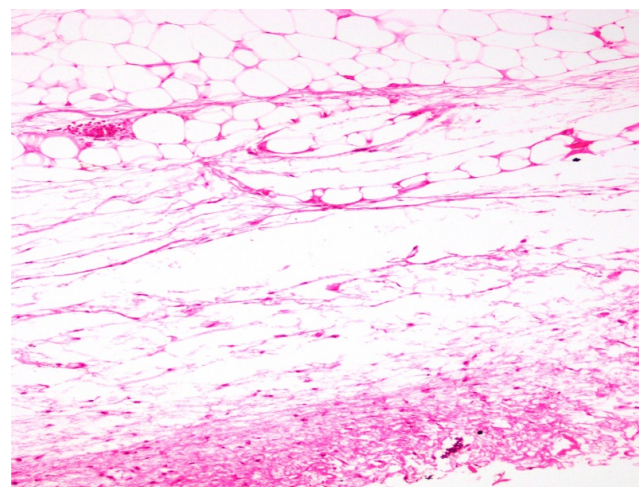


Figure 4: Histology confirming lipoma, consisting of multiple fragments of mature adipose tissue with eccentric nuclei and no evidence of malignancy.

Discussion

Lipomas are common benign fatty tumours that make up 50% of all musculoskeletal soft tissue tumours [4,5]. Lipomas tend to occur superficially but deep-seated lipomas have also been described; intermuscular lipomas are a subtype of the latter. These are rare entities, constituting only 0.3% of all fatty tumours [2]. We have reported the case of an intermuscular lipoma which was completely limited to the interpectoral region on MRI as well as intraoperatively, without any evidence of intrathoracic invasion.

Lipomas which are situated in deep locations mostly arise in the trunk and extremities [6]. Chest wall lipomas are rarely encountered [7]. They usually present in obese patients in the 6th to 8th decades of life [8]. The large majority are present in male patients [2]. To the best of our knowledge, there have been three case reports of intramuscular lipomas arising within the pectoralis major muscle, and two case reports of subpectoral lipomas, but no reported cases of a recurrent giant interpectoral lipoma [3,6,9-11].

Deep-seated lipomas associated with muscular tissue usually present as painless, slow growing masses. Some might even be detected incidentally on routine imaging. Our patient presented with a painless, progressively enlarging bulge of the right chest wall, leading to anterior displacement of the right breast without any neurovascular symptoms. The mass was confirmed to be present in the same location as his previous presentation.

It is important to rule out malignant tumours such as a liposarcoma because the presenting features can be the same as those of a lipoma. It is especially concerning when the lesion is in a deep location and is greater than 10 cm in size as in our case [12]. A well-differentiated liposarcoma can resemble a lipoma on imaging modalities such as CT scan and MRI [9].

Radiologically an intermuscular lipoma will be homogenous, well-defined and have a density similar to fat. It will be hyperintense on T1 and T2 weighted imaging with minimal areas of enhancement [12]. A liposarcoma will have thickened septae and areas of amorphous, nodular/globular enhancing regions [5,13].

The choice of treatment in our case was to excise the lipoma because of its large size (18.9 × 10.1 cm), progressive growth, and the patient's cosmetic concerns. Other indications for excision of such a lesion are symptoms of pain or a suspicious pre-operative needle biopsy [5].

Conclusion

Intermuscular lipomas are a rare subtype of deep-seated lipomas, with a local recurrence rate of 1%. This case report emphasizes the importance of distinguishing this benign tumour from a liposarcoma in cases of recurrence. Complete meticulous excision remains the treatment of choice.

Author's Contributions

Aysha Khan

- Conception and design, acquisition of data, analysis and interpretation of data
- Drafting the article, critical revision of the article
- Final approval of the version to be published

Sana Zeeshan

- Acquisition of data, analysis and interpretation of data
- Drafting the article, critical revision of the article
- Final approval of the version to be published

Abida K. Sattar

- Conception and design, acquisition of data, analysis and interpretation of data
- Drafting the article, critical revision of the article
- Final approval of the version to be published

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