

Case Report

Multiple Symmetric Lipomatosis of the Male Breast: An Unusual Mimic of Gynecomastia

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ABSTRACT

Multiple symmetric lipomatosis (MSL) is a very uncommon disease. Its etiopathogenesis is uncertain, although it has been linked to a variety of factors. Its main characteristic is the overgrowth of fat in form of an unencapsulated lesion. Most of the cases reported are in the head and neck region. We report a case that occurred in the breasts of a 62-year-old man. A clinical diagnosis of gynecomastia was initially made. Partial mastectomy was done and MSL was reported on histopathologic examination. Our literature search revealed no previous case of MSL in the breast reported from our environment.

KEYWORDS: Breast, lipomatosis, male

INTRODUCTION

Multiple symmetric lipomatosis is a rare disease. Its etiopathogenesis is uncertain although it has been linked to chronic alcoholism, disturbance in lipid metabolism, and autonomic and mitochondrial dysfunctions. Familial and syndromic associations have also been made. Its main characteristic is the overgrowth of fat in form of an unencapsulated lesion. Most of the cases reported are in the head and neck region. Here, we report a case that occurred in the breasts of a middle-aged man.

CASE REPORT

A 62 year-old man presented to our hospital with a 3-year history of painless progressive, soft, non-discharging, swellings of the breast bilaterally. There was no history suggestive of liver or endocrine disorders. There was no history suggestive of abnormal lipid metabolism. Our patient has no history of alcohol ingestion or usage of hormone or other drug use. He was not on any medications except for the here oft-used herbal blends whose constituents were not determined. The patient has no prior history of exposure to radiation or trauma to the breasts. On examination, the breasts were massively enlarged in a diffuse manner – with no palpably discrete mass – and were soft, non-tender with normal skin cover. There were no changes in the nipples

and areolae. Regional lymph nodes were not enlarged. Systemic examination was normal. A clinical diagnosis of gynecomastia was made.

Complete blood count and routine blood chemistry as well as liver function tests were all within normal limits. An impression of bilateral gynecomastia was also made on ultrasonography of the breasts. The treatment offered, in our case, was partial mastectomy with sparing of the nipple-areolar region. He had done well since discharge from the hospital and on subsequent follow up.

Grossly, we found a huge, unencapsulated masses partially covered by skin measuring 30 × 30 × 13 cm on the right side and 31 × 30 × 12 cm on the left [See Figure 1]. Cut sections revealed homogeneous, yellow, discoid, greasy fatty tissues.

Microscopic examination showed unencapsulated sheets and vague lobules of mature adipocytes with scanty, delicate, fibro-vascular connective tissue stroma. The cells exhibited minimal to moderate variation in shapes and sizes and had small, largely, eccentrically placed nuclei. The lesion was exclusive of any

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Figure 1: A huge unencapsulated diffuse fatty mass of the left and right breasts

epithelial elements even after extensive and thorough sampling [See Figure 2]. A diagnosis of multiple symmetric lipomatosis was made.

DISCUSSION

The term ‘lipomatosis’ has been used to describe the occurrence of multiple lipomas in a patient but some authorities in the field of soft tissue tumors prefer to use the term for diffuse non neoplastic proliferation of fat with some even considering attempts to distinguish between true neoplasms, hamartomatous processes and localized overgrowths of fat as largely speculative and of little practical importance.^[1] Multiple symmetric lipomatosis (eponymously called Madelung’s disease), also termed benign symmetric lipomatosis, however, is an uncommon and unusual but interesting disease of uncertain etiology that manifests characteristically as massive, symmetric lipomatous deposits in specific, often atypical areas of the body, but primarily in the head and neck region.^[2,3] MSL developing in this region is well known and well documented.^[4]

This disease condition predominantly affects men between the ages of 30 and 60 years with the incidence thought to be highest in western populations, especially in the Mediterranean areas.^[5] It was also found not to be uncommon in the Chinese.^[6,7]

Here, we report a case in an elderly black man. No reports have been encountered by us, of similar cases, from our own environment. MSL typically present with masses of fat around the head, neck and upper trunk, rarely involving the lower limbs and lower body as with most of the cases reported in literature.^[5,8] The main characteristics of MSL are symmetry, multiplicity, location of the lesions and the diffusing nature of the fat deposits. Our case, appearing as a symmetric bilateral breast lesion, does not exactly conform with the typical one. Cases with other rare sites of involvement, such as the tongue, are, however, on record too.^[9,10]

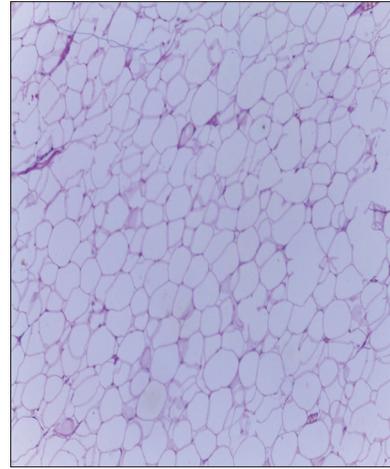


Figure 2: H and E image at $\times 10$ objective magnification showing diffuse proliferation of mature adipocytes

The etiopathogenesis is, on the whole, still unknown but many pathogenetic associations have been advanced. MSL has variously been related with alcoholism, liver dysfunction, disturbance of lipid metabolism and an impairment of autonomic – predominantly parasympathetic – function, and with some mitochondrial DNA mutations.^[6,11-13] In the Chinese, MSL is reported not to be unrelated to the increasing incidence of alcoholism.^[6] Some authors have asserted that there is a proven connection with a disturbance of lipid metabolism and with chronic alcoholism.^[11] Trauma or irradiation, according to others, may lead to overgrowth of fat clinically indistinguishable from lipomas.^[1] No such associations were gathered in the course of investigation of this patient although a history of long term usage of traditional herbal remedies was elicited but we are unable to establish any causal relationship with the presentation.

Like most lipomas, MSL grow insidiously and may cause few and mostly cosmetic problems. The present case only presented three years after the onset of symptom when the breast enlargements were very discernibly oversized [see Figure 1]. The suspicion of gynecomastia; a benign proliferative abnormality of the male breast come to the fore when dealing with bilateral synchronous male breast swellings in most settings probably because it constitutes most common clinical and pathologic abnormality of the male breast.^[14] Other clinical differential diagnoses included bilateral breast lipomas; breast lipoma itself another rarity and diagnostic dilemma. Lipomas of the breast usually being solitary, circumscribed (characteristic circumscription), well defined masses.^[15,16] In addition, lipomatous cells may grow larger, up to 200 μm sometime, against the average size of about 20 μm in normal and non-neoplastic adipocytic cells.^[1,5] Microscopically,

the cells in the current case were predictably mainly small-sized [see Figure 2].

Classic surgical lipectomy has been the most common reported treatment. However, other cases of patients successfully treated with liposuction were also reported and both modalities of treatment are considered safe and effective.^[17,18] The treatment offered, in our case, was partial mastectomy with sparing of the nipple-areolar region. This probably may at least in part account for the lack of recurrence, four years after surgery, for because of their lack of capsulation complete excision of these lesions may not be achieved, and recurrence is quite common after surgical removal.^[5] Malignant transformation to a myxoid liposarcoma has, however, been reported in one case and long-term follow-up studies cited substantial disease-related morbidity and mortality.^[4,19]

CONCLUSION

Tumor like lesions of adipose tissues are well-defined in literature, but have only received little attention in the medical literature in our own setting. Multiple symmetric lipomatosis may occur in the male breast, and thus constitute a mimic of bilateral gynecomastia.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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