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A SILENT LUMP: SOLITARY LIPOFIBROMA IN A MIDDLE-AGED WOMAN

Dermatology

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ABSTRACT

Lipofibroma, also known as nevus lipomatosus superficialis, is a rare benign hamartomatous skin lesion characterized by the ectopic presence of mature adipose tissue within the dermis. It typically presents as multiple soft, skin-coloured to yellowish papules or nodules with a prelidiction for the pelvic or the gluteal region. Solitary forms are less common and can be diagnostically challenging due to their resemblance to other cutaneous lesions. We report a case of 46 - year – old woman who presented with a solitary , slow growing , asymptomatic lesion on the right lower back. This case underlies the importance of considering lipofibroma in the differential diagnosis of dermal nodules and highlights its benign nature and favourable prognosis post- excision.

KEYWORDS

Lipofibroma, nevus lipomatosus superficialis, dermal hamartoma, benign skin tumor, adipose tissue in dermis.

INTRODUCTION

Nevus lipomatosus superficialis (NLS), commonly referred to as lipofibroma, is an uncommon benign lesion first described by Hoffmann and Zurhelle in 1921. Histologically, it is characterised by the presence of mature adipose tissue embedded within the dermis without connection to the subcutaneous fat. It is considered a hamartomatous proliferation and is not neoplastic in nature.

Lipofibroma Exists In Two Clinical Variants: the classical (multiple) type and the solitary form. [1] The classical type generally arises at birth or in early childhood, often in the gluteal, thigh or pelvic region. The solitary form, on the other hand, tends to appear later in life, particularly after the third decade of life and can occur anywhere in the body.

Given its rarity and non - specific appearance, lipofibroma is often misdiagnosed clinically as other benign skin lesions such as fibroepithelial poly, neurofibromas, lipomas, or adnexal tumor. A definitive diagnosis is made histologically. Such excision is curative with no reported cases of recurrence or malignant transformation.

This case report details the presentation, diagnosis, and management of a solitary lipofibroma in a middle – aged woman, emphasizing the clinical relevance of distinguishing this lesion from other dermal tumors.

Case Report

A 46-yaer-old female presented to the dermatology outpatient department with a complaint of a painless, gradually enlarging lesion over the right lower back for the past 16 months. The lesion was initially pea-nut sized and has gradually progressed to attain the current size with lobulations. There was no associated itching, discharge , or bleeding. She denied any history of trauma , insect bite or similar lesions elsewhere in the body. Her medical, surgical, and family history was unremarkable, and she was not on any long - term medications.

On clinical examination, a solitary, flesh – coloured, pedunculated, soft, non-tender nodule with multiple lobulation measuring 5 × 7 cm approximately was noted over the right side of lower back. The overlying skin was normal without any ulceration, erythema or pigmentation (Figure 1). No regional lymphadenopathy was detected. Other cutaneous and systemic examinations were within normal limits.

Differential diagnosis considered includes Intradermal lipoma, Neurofibroma, Fibroepithelial polyp, Fibroepithelial poly and Adnexal tumor.

An excision biopsy was done under local anaesthesia after obtaining consent from the patient. Haematoxylin and eosin stains revealed mature adipocytes interspersed within the collagen bundles of the dermis. There was no evidence of cellular atypia, mitosis, or inflammatory infiltrate. The epidermis appeared unremarkable. No connection was noted between the adipose tissue and the subcutaneous fat layer, confirming the diagnosis of nevus lipomatosus superficialis (solitary type).

Primary closure of the excision site was achieved using absorbable subcuticular sutures. The surgical site healed well within two weeks with no signs of infection or recurrence. The patient was followed up for six months postoperatively, during which there was no evidence of recurrence or development of new lesions.

DISCUSSION

Nevus lipomatosus superficialis is a rare benign cutaneous anomaly, that consists of mature adipocytes in the dermis. The two variants - the classical (Hoffmann – Zurhelle) type and the solitary form – differ in presentation, age of onset, and distribution.[2] The classical form presents in younger individuals as multiple, grouped nodules coalescing into plaques. The solitary type typically presents in adulthood as an isolated lesion without a prelidiction for any specific site. [3]

The pathogenesis of lipofibroma is poorly understood. The most widely accepted theory suggests that dermal adipocytes arise due to adipose metaplasia of dermal connective tissue. [4] Others propose a developmental anomaly of the mesenchymal tissue.

Histopathologically, the hallmark finding is the presence of mature adipose tissue in the dermis, usually accounting for 10-50% of the lesion volume. [5] The overlying epidermis is generally normal or may show features of hyperkeratosis or acanthosis. Immunohistochemical studies may reveal a positive S100 protein in the adipocytes, although this is not required for the diagnosis. Importantly, lipofibroma lacks encapsulation. [6] Which differentiates it from lipomas.

Clinically, lipofibromas should be differentiated from lipoma, which is usually subcutaneous, and not found in the dermis, neurofibroma – which is soft with a distinct buttonhole sign and histologically has spindle cells, sebaceous nevus – that are present since birth , mostly on the scalp with sebaceous hyperplasia, connective tissue nevus – containing fibroblasts and collagen instead of adipocytes.

Management

Surgical excision is the treatment of choice, both for diagnostic confirmation abs therapeutic purposes. As the lesion is benign and does not recur after complete excision, the prognosis is excellent. Laser therapy and cryotherapy is not generally recommended due to poor cosmetic outcome.

Although benign lipofibromas should be accurately diagnosed to avoid unnecessary anxiety for the patient and to distinguish them from potentially malignant conditions. Misdiagnosis of neurofibroma or adnexal tumor may lead to further invasive investigations.

CONCLUSION

This is a case of solitary lipofibroma in a 46 – year - old woman

illustrates the importance of considering rare dermal hamartomas in the differential diagnosis of asymptomatic nodules. Lipofibroma, though rare, should not be overlooked due to its benign nature, distinctive histological features, and excellent post-surgical prognosis. Clinical suspicion followed by histopathological confirmation remains the cornerstone of diagnosis. Awareness and reporting of such cases can contribute to better recognition and understanding of this rare entity in routine dermatological practise.

Conflicts Of Interest – Nil
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Figure : 1

Legends To The Figure
Figure – 1 showing pedunculated , soft , non – tender , lobulated nodule over the right side of lower back. Overlying skin is normal without any erythema or ulceration.

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