

## Nevus Lipomatosus Superficialis: A Rare Case Report

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### Abstract

Nevus lipomatosus superficialis is a rare hamartoma of skin. It occurs due to presence of mature adipose tissue in dermis. It is of two types classical and solitary. Here we report a case of 30 year old female with a slowly growing pedunculated growth in right gluteal region for 6 years. Growth measures about 3×2 cm. Microscopically underlying dermis shows mature adipose tissue which shows no connection with subcutaneous fat. Adipose tissue also seen interspersed between collagen bundles. A final diagnosis of Nevus lipomatosus superficialis was made.

**Keywords:** Hamartoma, Pedunculated Growth, Classical, Solitary.

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### Introduction

Nevus lipomatosus superficialis is a rare benign cutaneous hamartomatous skin lesion characterised by the presence of aggregates of mature adipose tissue among the collagen bundles of dermis. Its first case is reported by Hoffman and Zurhelle in 1921 [1]. It presents with yellowish or skin coloured soft nodules or papules having smooth surface.

On the basis of clinical features it is classified in to two types classical and solitary. The classical form mostly located on gluteal region, pelvic or upper thigh region, and lower back area. It may be present by birth or

may appear by the age of 20 or before. . The solitary form can be located on any part of body and present as single solitary papule. Nevus lipomatosus superficialis is equally seen in both males and females and not associated with congenital abnormalities [2]. We report a case of this rare case of Nevus lipomatosus superficialis in a 30 year old female.

### Case report

A 30 year old female presented to surgery OPD with complain of a pedunculated

growth in right gluteal region for 6 years. Growth was slowly progressive in nature, initially very small measuring 3×3 mm slowly progressed to size measuring about 3×2 cm. There was history of itching in the swelling there was no history of pain, redness or any discharge from swelling. Patient had no similar swelling on any other part of the body with no history of trauma, previous surgery or any significant family history. There was no history of any neurological deficit. On examination swelling was solitary skin coloured and pedunculated measuring about 3×2×2 cm in size, soft, mobile, non-tender with no signs of inflammation. There was no ulceration, pigmentation, café au lait spots. Systemic examination was normal.

Excisional biopsy was done by surgeon and sent for histopathological examination. We received single skin covered greyish brown globular tissue piece measuring 3×2×2 cm in size. Cut section is greyish white to greyish yellow in colour.

Microscopically section from globular tissue piece shows thinned out stratified squamous

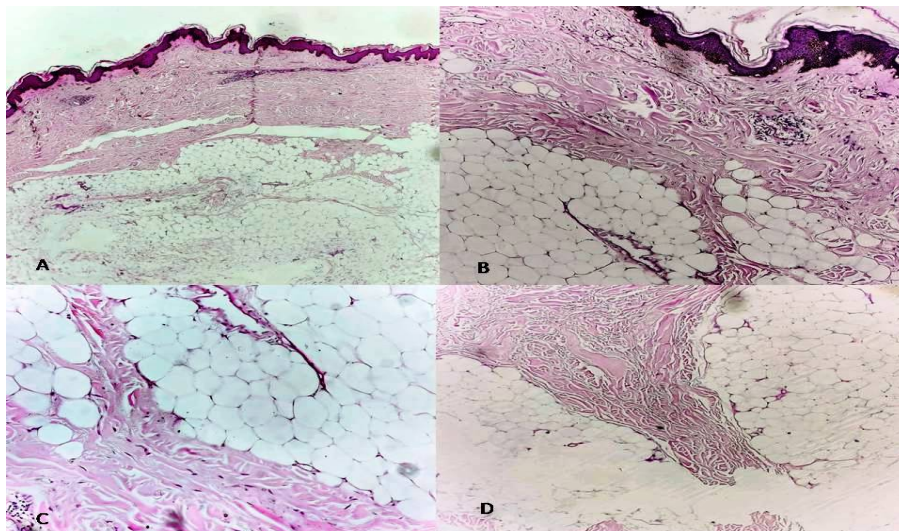
epithelium which shows unremarkable histology. Underlying dermis shows mature adipose tissue which shows no connection with subcutaneous fat (figure A,C,D). Adipose tissue also seen interspersed between collagen bundles (figure B). No malignancy identified in the section examined. On basis of these features a diagnosis of Nevus lipomatosus superficialis was made.

### Legends

Figure A: High power view shows unremarkable epidermis with underlying dermis shows mature adipose tissue (100x, H&E).

Figure B: Section shows adipose tissue interspersed between collagen bundles (100x, H&E).

Figure C,D: High power view shows adipose tissue in underlying dermis lying in between the collagen showing no connection with underlying subcutaneous tissue (400x, H&E).



### Discussion

Nevus lipomatosus superficialis is a benign hamartoma of adipocytes. It is benign malformation of skin which shows mature fat

in dermis histologically. The percentage of fat varies from 10-50% [1]. It is not heritable and its pathogenesis is not known. One of the

theory was proposed that Nevus lipomatosus superficialis is due to adipose metaplasia occurs due to degenerative changes in the connective tissue of dermis and heterotopia of the adipocytes or formation of mature adipocytes from primitive lipoblast by mesenchymal perivascular cells [2-5]. It is a type of connective tissue nevus because mesenchymal elements in the dermis besides fat cells, like elastic fibres, collagen bundles, fibroblast and blood vessels, are changed in Nevus lipomatosus superficialis [2]. Deletion of 2p24 has been defined suggesting the role of genes [5].

It is classified in two types- 1) Classical type  
2) Solitary type

Classical type also known as multiple type occurs during first three decades and is presented as clusters of soft, yellow or skin covered papules or nodules, having smooth and wrinkled appearance. Its classical location are lower back, pelvic girdle, buttocks and upper thighs in a zosteriform pattern. Solitary type can present anywhere on body and present as single nodule during third to sixth decade of life. In our case patient is 30 year female presented with pedunculated growth on gluteal region since 6 years, these all features are compatible with classic type [3,4]. These lesions are asymptomatic as reported by many cases but in our case patient was presented with history of itching in the lesion. Association with café-au-lait macules, leukodermic spots, overlying hypertrichosis and comedo like alteration can be seen as reported by Pujani *et al* and Patil *et al* in 2014.

Histopathological examination shows thinned out stratified squamous epithelium . Underlying dermis shows mature adipose tissue which shows no connection with subcutaneous fat. Adipose tissue also seen interspersed between collagen bundles. In cases reported by Patil *et al* in 2014 and Buch

*et al* in 2005, there is increase density of collagen fibres, fibroblasts, and a perivascular infiltration of mononuclear and spindle shaped cells. The epidermis shows acanthosis, basket weave hyperkeratosis, increased basal pigmentation and obliteration with focal elongation of rete ridges. Adnexal structure may show perifollicular fibrosis. It is differentiated from similar lesions like lipofibromas, skin tags, hemangioma, lymphangioma, and focal dermal hypoplasia, nevus sebaceous, connective tissue nevus, neurofibroma, fibroepithelial polyp, leiomyoma cutis [2-4]. Treatment of choice is surgical excision, done for cosmetic reason only. No systemic disease and malignant change is associated with lesion [1]. Patient who are not willing for surgery cryotherapy can be used as treatment of choice [2].

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