



NEVUS LIPOMATOSUS SUPERFICIALIS- A STUDY OF THREE CASES

Dermatology

S. Sivaramakrishnan	Junior Residents, Department of Dermatology, Venereology & Leprosy, Sree Balaji Medical College & Hospital, Bharath University, Chennai 600044, Tamil Nadu, India.
Avinash Pravin	Junior Residents, Department of Dermatology, Venereology & Leprosy, Sree Balaji Medical College & Hospital, Bharath University, Chennai 600044, Tamil Nadu, India.
Jayakar Thomas*	HOD & Professor, Department of Dermatology, Venereology & Leprosy, Sree Balaji Medical College & Hospital, Bharath University, Chennai 600044, Tamil Nadu, India. *Corresponding Author

ABSTRACT

Nevus lipomatosus superficialis is an uncommon benign condition affecting children and young adults. Clinically it presents as a segmental distribution of soft yellowish or skin colored nodules or plaques mainly found over the gluteal or lumbar region, pelvic girdle or the thighs, however it has been reported over unusual sites such as face, shoulders and genitalia. Here we present a series of 3 case reports of this condition in patients who attended our OPD

KEYWORDS

INTRODUCTION:

Nevus lipomatosus superficialis has been described as a hamartoma of the adipose tissue within the dermis¹. It being a nevoid condition can present clinically since birth but usually manifests by the first three decades of life. Hoffman and Zurhelle are credited with the discovery of the condition and reported the first case². They usually present as a group of asymptomatic, soft, yellowish or skin colored papules or nodules mostly distributed in the pelvic girdle region. Solitary lesions have been reported³ which usually manifests after the second decade.

CASE REPORTS:

Case 1: A 25 year old female came with complaints of multiple smooth, soft and non-tender growths over the left side of the hip since 5 years. Examination revealed multiple, soft, hypopigmented nodules coalescing to form a plaque (4x1.5cm) over the left side of the hip extending towards the midline. A few discrete, soft, yellowish papules were seen scattered around the lesions. Several open comedones were seen over the plaque. (FIGURE 1) The lesion was non tender and no regional lymphadenopathy was felt. Systemic examination was normal. Patient refused for a biopsy and was lost to follow up.

Case 2: A 16 year old male patient presented with complaints of a raised lesion over the right side of his lower back for the past 6 years. The lesion was asymptomatic but showed a gradual increase in its size. On examination, several skin colored nodules were coalesced together forming cerebriform lesions of sizes 3x2cm and 1x1cm situated over the posterolateral aspect of the lower back on the right side (FIGURE 2A). They were soft and non-tender on palpation. The lesion was biopsied for histopathological study.

Case 3: A 40 year old male patient presented with a history of multiple soft swellings over his left gluteal region extending to the adjacent thigh for 10 years duration. Patient reported that the lesions were asymptomatic. On examination multiple soft, compressible nodules were noted over the left gluteal region extending on either to the lateral aspect of left thigh in a linear distribution. Some of the lesions were pigmented (FIGURE 3A). A punch biopsy of the lesion was obtained for histological study.

The histopathological study of the both the specimens (cases 2&3) revealed the presence of mature fat cells within the dermis dissecting through the dermal collagen fibers (FIGURES 2B&3B). Increased pigmentation of basal cell layer was noted in specimen 3. The features were consistent with the diagnosis of nevus lipomatosus superficialis. The patients were reassured regarding the benign nature of the condition and referred to the general surgery department.

DISCUSSION:

Nevus lipomatosus superficialis is a fairly uncommon nevoid condition

that most commonly presents in children and young adults. The condition is characterized by the presence of mature adipocytes embedded within the dermis, in between the collagen bundles. The fat cells may be distributed in a perivascular and perieccrine manner. The fat cell content may vary anywhere from 10-50 percent⁴. The dermis is otherwise normal. The epidermis overlying the fat cell aggregates may show acanthosis or increased pigmentation. Clinically patient presents with multiple soft yellowish papules and nodules which may coalesce to form multilobular, pedunculated or sessile lesions. Lesions are classically distributed unilaterally along the pelvic girdle however they have been known to occur over other sites such as face, chest, abdomen, scrotum⁵ or vulva⁶. Rare instances of comedo-like lesions and increased hair have been reported⁷

The lesion must be differentiated clinically from hemangioma, neurofibromas, acrochordon, lymphangiomas and soft tissue nevus. Under the microscope Goltz syndrome (focal dermal hypoplasia) may present with a similar picture but the condition can easily be differentiated by its characteristic clinical picture.

Nevus lipomatosus superficialis has a very good prognosis and surgical excision is all that may be required. Topical corticosteroid has given satisfactory results in one case report⁸.

CONCLUSION:

Nevus Lipomatosus Superficialis is an uncommon nevoid condition presenting in children and young adults, characterized by presence of mature fat cells within the dermal tissue. These cases have been reported due to its uncommon occurrence.

ACKNOWLEDGEMENT:

None

CONFLICT OF INTEREST:

The authors declare there is no conflict of interest



FIGURE 1: Clinical picture showing multiple soft hypo pigmented nodules coalescing to form a plaque over the left side of the hip extending towards the midline



FIGURE 2A

FIGURE 2B

FIGURE 2

- **A: Clinical photograph showing several skin colored nodules coalesced together forming cerebriform lesions situated over the posterolateral aspect of right lower back**
- **B: Microscopic image at 5x magnification. Aggregates of mature fat cells can be seen within the dermis**



FIGURE 3A

FIGURE 3B

FIGURE 3

- **A: Clinical photograph showing multiple soft and pigmented nodules over the left gluteal region extending on either to the lateral aspect of left thigh in a linear distribution.**
- **B: Microscopic image at 5x magnification. Mature adipocytes can be seen dissecting through the collagen bundles in the dermis**

REFERENCES

- 1) Pujani M, Choudhury M, Garg T, Madan NK. Nevus lipomatosus superficialis: A rare cutaneous hamartoma. Indian dermatology online journal. 2014 Jan;5(1):109.
- 2) Hoffmann E, Zurbelle E. Über einen Naevus lipomatodes cutaneus superficialis der linken Glutäalgegend. Archiv für Dermatologie und Syphilis. 1921 Dec 1;130(1):327-33.
- 3) Yap FB. Nevus lipomatosus superficialis. Singapore medical journal. 2009 May;50(5):e161-2.
- 4) Ragsdale BD. Tumors with fatty, muscular, osseous, and/or cartilaginous differentiation. Lever's histopathology of the skin, Elder DE, Elenitsas R, Jhonson BL, Murphy GF, Xu X editors.
- 5) Ganjoo S, Sawhney MP, Sharma U. Pedunculated nevus lipomatosus cutaneous superficialis of the scrotum successfully removed by excision. Indian Journal of Paediatric Dermatology. 2018 Apr 1;19(2):148.
- 6) Singh N, Kumari R, Thappa DM, Kar R, Kulandaisamy S. Classic form of nevus lipomatosis cutaneous superficialis of vulva. Indian Journal of Dermatology, Venereology, and Leprology. 2014 Sep 1;80(5):473.
- 7) Dhar S, Kumar B, Kaur I. Naevus lipomatosus superficialis of Hoffman and Zurbelle. Indian Journal of Dermatology, Venereology, and Leprology. 1994 Jan 1;60(1):39.
- 8) Castagna RD, Benvegnú AM, Dallazem LN, Brutti CS. Topical corticosteroid therapy: a treatment option for nevus lipomatosus cutaneous superficialis?. Anais brasileiros de dermatologia. 2018 Feb;93(1):158-9.