ADULT-ONSET NEVUS LIPOMATOSIS CUTANEOUS SUPERFICIALIS: A CASE REPORT

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ABSTRACT

Nevus lipomatosis cutaneous superficialis (NLCS) is an uncommon benign hamartomatous condition characterized by mature ectopic adipocytes in the dermis. Here we present a case of a 34 years female with a four years history of multiple, skin coloured, painless nodules over the inner side of the right upper thigh. The lesion was excised and sent for histopathological examination and was found to be nevus lipomatosis cutaneous superficialis. Such a case is rare and only few cases have been reported in context of Nepal hence the recognition of the condition is important.

KEYWORDS

Adipocytes, biopsy, nevus lipomatosis cutaneous superficialis, skin coloured swelling

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INTRODUCTION

Nevus lipomatosis cutaneous superficialis (NLCS) is an uncommon benign hamartomatous condition characterized by mature ectopic adipocytes in the dermis.[1] It consists of flesh-colored or yellowish soft nodules or papules with smooth or wrinkled surface, which are histologically composed of groups of mature fat cells located among the bundles of dermal collagen.[2] It was first reported by Hoffman and Zurhelle in 1921.[3] The two types of NLCS have been reported. The classical type and the solitary type. The classical type presents as a zosteriform pattern which is skin colored-yellow, soft, non tender papule, nodule or plaques that either present at birth or within the first three decade of life. The latter presents as a single, sessile, dome shaped papule or nodule which arise at third to sixth decade of life.[4]

CASE REPORT

A 34 years old woman presented to Dermatology and Venereology outpatient department of Nepal Medical College Teaching Hospital, Kathmandu, Nepal with chief complaints of multiple skin coloured asymptomatic nodular lesions, located on the inner side of the right upper thigh for four years. Since the mass was painless and increased in size through years, her primary concern was whether the mass was a cancer. Initially, the nodules were about 1-2 in number which gradually increased in size and in number over the past two years with no history of neurological deficits. There were no history of similar nodules on the other parts of the body with no similar history in the family. There is no history of any chronic diseases. She underwent laparoscopic cholecystectomy three months back.

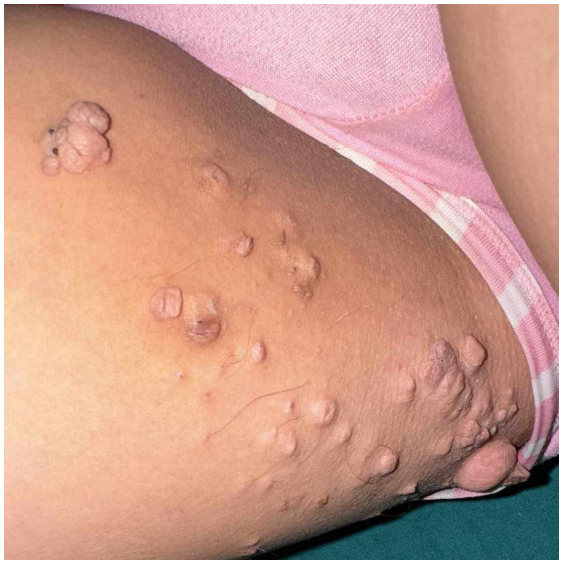

Fig. 2: Multiple lesion over the medial aspect of the right inner thigh.

Examination revealed multiple skin coloured swellings which were lobulated, pedunculated, soft, non-tender with no ulceration or induration. There were no enlarged regional lymph nodes, ulceration, excessive hair growth, no cafe-au-lait spots over the body (Fig. 1 and 2).

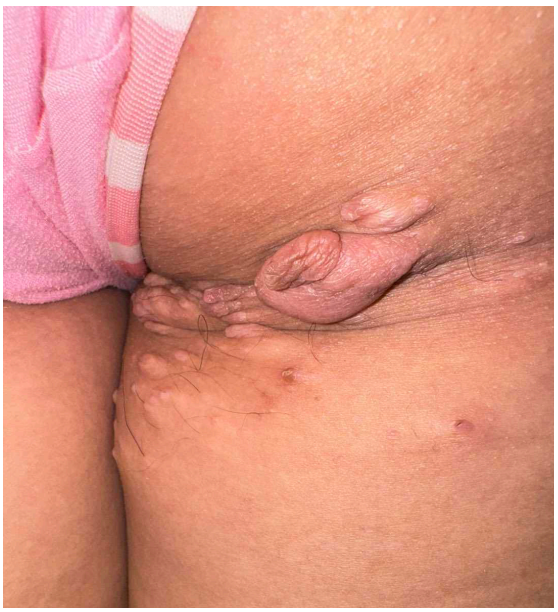

Fig. 1: Multiple lobulated, pedunculated, soft skin coloured swelling over the medial aspect of the right inner thigh.

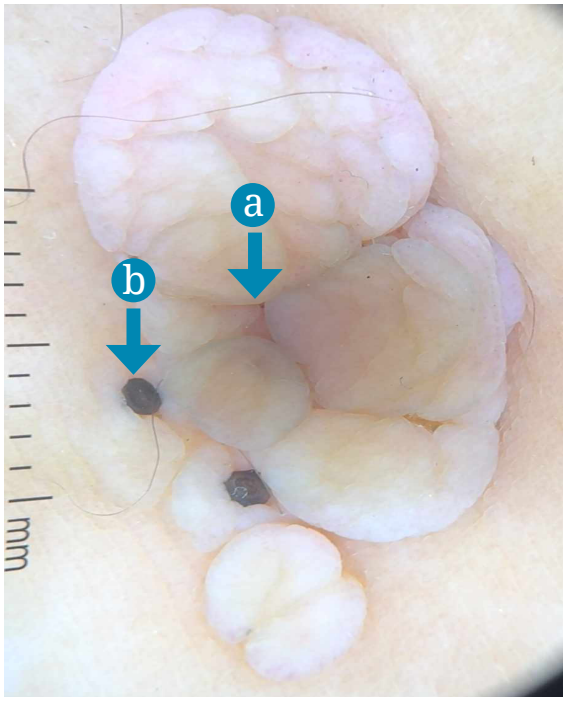

Fig. 3: Skin coloured cauliflower like mass. 3a: Gyri and sulcus. 3b: Comedo like opening.

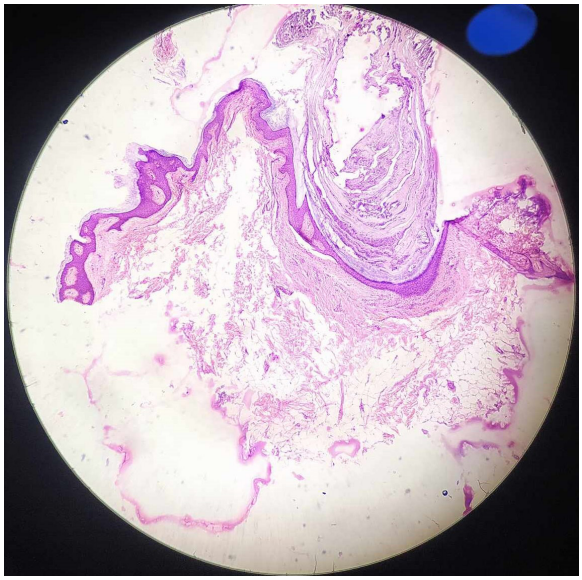

Fig. 4: Epidermis with orthokeratosis, irregular acanthosis, wedge-shaped hypergranulosis. Adipose tissue interspersed among collagen bundles (H&E stain; x4).

Dermoscopic examination was done using a DermLite DL4 dermatoscope (x10) with polarized mode. It revealed skin coloured cauliflower like mass with a cerebriform pattern with sulci and gyri and comedo like openings (Fig. 3).

Systemic examinations other than stable localized vitiligo of upper trunk and abdomen were unremarkable. Ultrasonography revealed multiple variable sized heterogenous isoechoiec mass in superficial plane of the right inner thigh with areas of hyperechogenicity and posterior acoustic shadowing suggestive of Lipomatous cutaneous nevus.

Routine laboratory examinations of blood, urine and stool were within the normal limit. With differentials as Nevus lipomatosis cutaneous superficialis, segmental neurofibromatosis, lymphangioma and fibroepithelial polyp the patient was advised for biopsy of the nodule. An excisional biopsy was done and was sent for histopathology in a container with formalin . The histopathological examination revealed the epidermis overlying the nodule showing keratinized startified squamous epithelium with orthokeratosis, irregular acanthosis and wedge-shaped hypergranulosis. The stroma of the polyp showed interlacing bundles of haphazardly arranged collagen. Numerous lobules of mature adipocytes are seen entrapped within the collagen. No evidence of malignancy were seen in the examined section (Fig. 4).

After considering the above mentioned clinical and histopathological characteristic features, a diagnosis of NLCS was made. The patient was counselled regarding the skin condition. However, due to the occurrence of the lesion over a difficult area, constantly irritating the patient on performing daily basic activities like walking, we provided available modalities of treatment to the patient. The patient opted for surgical excision via Radiofrequency ablation. The patient is in regular follow up for the removal of nodules via radiofrequency ablation under local anesthesia as per the ease and the cosmetic concerns of the patient. No recurrence was observed upto three months, from the time of this case report was reported to the Department of Dermatology and Venerology (April 2024 - July 2024).

DISCUSSION

NLCS is an uncommon condition. Two types of NLCS have been defined. The classical type usually occurs since birth to the third decade of life. They are multiple, smooth to wrinkled, soft, skin coloured, yellow papules or nodule which have a cerebriform appearance. The solitary type are usually single papules or nodules without age or site prediliction.[5,6]

Several case studies done in Nepal have mentioned the different age group of this pathology.[7-9] Some other case studies done in India showed no comorbidities associated with this condition.[1,7-9] Surgical excision was done for the removal and treatment of the skin lesion.[1,7,8] However, a case study done in India showed a 26 years old man with smooth, non tender nodular growth over the perianal region with history of occasional foul smelling discharge over the lesion and a positive history in family in his sisters.[1] Another case study done in Egypt revealed a very young 12 years female having a solitary lesion in the lower right back since 9.5 years of age, the patient suffered from sensory neural hearing loss with a positive family history in her father and paternal uncles. The lesion was surgically excised.[10] Nevertheless, rare coexistent anomalies such as angiokeratoma of Fordyce, and hemangioma, café-au-lait macules and scattered leukoderma also have been reported in NLCS.[11,12]

Various modalities of treatment of NLCS have been reported. Treatment is usually not necessary other than for cosmetic reasons.[13] Malignant changes and systemic abnormalities however, have not been associated with NLCS. Excision is curative and the recurrence after surgery is rare.[14]

The idea of the case report was to highlight some

of the unusual features of NLCS as multiple zosteriform papules and plaques which were present after the third decade of life. The clinical and histopathological correlation is important to aid the diagnosis, for a proper counselling and the treatment of lesions in the patient.

In conclusion, it is important to know the features of the above condition as it is an uncommon condition and can be confused with skin tags, segmental neurofibromatosis, lymphangioma, fibroepithelial polyp. Therefore, knowing the variable presentations of the lesion might help make a correct diagnosis and similarly the treatment.

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