



NEVUS LIPOMATOSUS CUTANEOUS SUPERFICIALIS A RARE CASE REPORT

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ABSTRACT Nevus lipomatosus cutaneous superficialis (NLCS) is a rare idiopathic hamartomatous anomaly of skin. It is characterized by presence of clusters of mature fat cells (ectopic adipocytes) among collagen bundles of the dermis. Author report a case of a male aged 14 years, who complained of swelling over left buttock since birth which was later diagnosed as classical form of NLCS (rare skin malformation). On examination, the swelling was soft to firm, non-warm, non-tender and sessile with cerebriform surface. Complete blood count (CBC) showed mild anemia. All other laboratory investigations were within normal range. No systemic complaints were noted. Surgical excision followed by repair of skin defect was done by plastic and reconstructive surgery. Histopathological examination was necessary to differentiate various other soft tissue tumours like solitary mastocytoma, neurofibromatosis, cutaneous leiomyoma, shagreen patch, lymphangioma, hemangioma and skin tag (fibroepithelial pyp).

KEYWORDS :

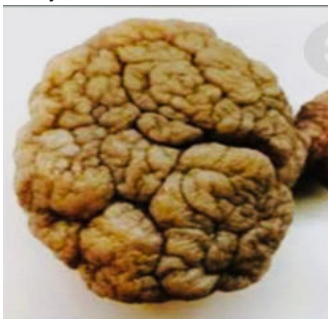
CASE REPORT

A 14 year old male patient presented to plastic surgery department of Shardaben general hospital with swelling over left buttock (gluteal region) since birth which gradually increased in size. He had no history of trauma or previous surgery. No past medical history or other congenital complications. No systemic complains and family history noted. Physical examination revealed skin coloured, soft to firm, nodular, non-warm, non-tender, non-mobile swelling with cerebriform surface. No ulceration, local discharge, irritation, café-au-lait or excessive hair growth noted. Neurological sensations were normal. All laboratory investigations were normal. Complete blood count (CBC) showed mild anemia (Hb<11 gm/dl).

Diagnostic tests were done. Magnetic resonance imaging (MRI) revealed that tumour contained unevenly distributed fat and had infiltrated the subcutaneous tissue which displayed a horizontal view on MRIT2.

The tumour was resected and small cutaneous defect was closed with a rotation skin flap under general anesthesia. No complications occurred during or after surgery. The tumour was resected with a margin on the fascia.

The specimen was sent for histopathological examination. Gross examination showed single whitish brown skin covered soft tissue measuring 5x3x1.5cm. On cut section, it was whitish. Multiple sections were taken and processed according. H & E staining was done. Histopathological examination revealed tissue lined by acanthotic epidermis showing Keratosis, parakeratosis and focally horn cysts. Adipose tissues continuous with underlying subcutaneous fat were seen among collagen bundles of dermis. It also revealed chronic inflammatory infiltrates.



DISCUSSION

Nevus lipomatosus cutaneous superficialis (NLCS) is an uncommon benign cutaneous hamartomatoma. It was first reported by Hoffman and Zurhelle in 1921. It is characterized by presence of ectopic mature adipocytes in dermis. The proportion of fatty tissue varies greatly from more than 50% to <10% of dermis.

There are two clinical types distinguished:

- (1) The classical type
- (2) The solitary type.

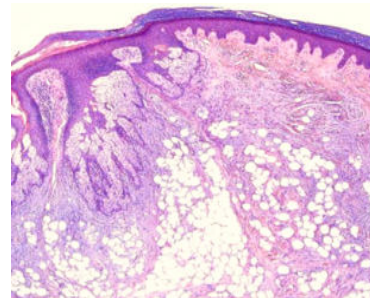
(1) The classical type:

The classical type of NLCS was first reported by Hoffman and Zurhelle. The most common site for classical type is pelvic and gluteal region. It occurs at birth or during first three decades of life. It presented as a single painless nodular mass over left buttock which over the time developed intoskin coloured, well defined, soft pedunculated growth with cerebriform surface centered by comedo like plug. It increases in size and spread over a larger area with time.

The case reported here is of classical type of NLCS situated on gluteal region present since birth.

(2) The solitary type:

The solitary form usually occurs after age of 20 years. It presents with single nodular lesion with no particular predilection sites.



Causes:

The exact cause of predilection of NLCS for pelvic girdle region is unknown. Theories of predilection of pelvic girdle include the following:

- (a) Persistent pressure in pelvic girdle area during intra-uterine life.
- (b) Thickness of fat pad in pelvic girdle area predisposing to fat cell disorders.

Other theories:

- (a) Degenerative changes in dermal collagen fibers and elastic tissues leading to deposition of ectopic adipocytes (adipose metaplasia).
 - (b) Focal heterotopic development of adipose tissues.
 - (c) Development of ectopic adipocytes from pre adipose tissues derived from dermal perivascular mesenchymal tissue.
- Sometimes, there occurs spontaneous necrosis, ulceration and foul smelling discharge.

Certain postulations:

- (a) Compression of dermal blood vessels by ectopic adipocytes.

(b) External trauma due to persistent pressure on pelvic girdle region.

CONCLUSIONS:

NLCS is a rare idiopathic hamartomatous benign skin anomaly. The classical type is an uncommon condition, we presented with the intent to highlight its clinical and histopathological features and differential diagnosis.

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