

Pedunculated Lipofibroma (Hoffmann-Zurhelle) on the Palm

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Sir,

Pedunculated lipofibroma is a rare form of *nevus lipomatosus cutaneous superficialis* (NLCS). The lesions are large, slow-growing, pedunculated tumours, characterized histologically by ectopic adipose tissue in the dermis. We report here a case of pedunculated lipofibroma in a Japanese woman.

CASE REPORT

A 47-year-old woman presented with a 1-year history of a nodule on her right palm. She stated that the lesion had originally appeared without any trigger one year previously and that it had gradually increased in size. Physical examination revealed a pedunculated, solitary, asymptomatic nodule, 30×30 mm (Fig. 1). The prominent stalk was 8 mm long. The nodule was smooth, skin-coloured and soft.

Histopathological examination revealed a slightly acanthotic epidermis with flattened rete ridges. Both the papillary and reticular dermis were thin and contained scattered lobules of fat cells entrapped between bundles of dermal collagen fibres. Great irregularity in the dermal-subcutaneous interface was observed as a result of the marked increase in adipose tissue. In the dermis, moderately dense perivascular lymphocytic infiltrates were observed, and adnexal structures were absent (Fig. 2 a, b). Based on these findings, the diag-



Fig. 1. A pedunculated, solitary, asymptomatic tumour on the right palm.

nosis of pedunculated lipofibroma was established. The nodule was completely excised and there has been no recurrence for 2 years.

DISCUSSION

Pedunculated lipofibroma is a rare, benign connective tissue neoplasm. The lesion is solitary, slow growing and is characterized by ectopic adipose tissue in the

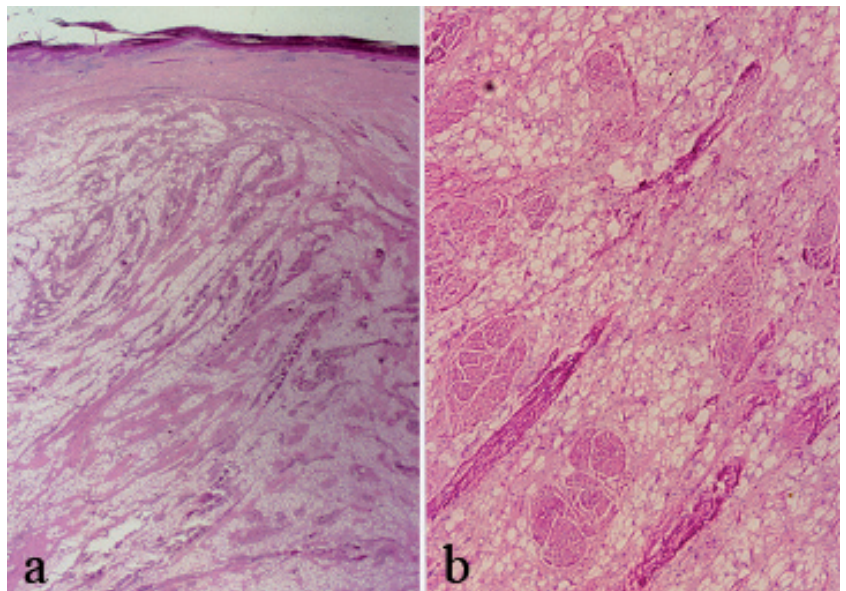


Fig. 2. (a) Thinning of the papillary and reticular dermis with a marked increase of adipose tissue. (b) Scattered lobules of fat cells entrapped between bundles of dermal collagen fibres. (Haematoxylin and eosin (H&E) stain; original magnifications: (a) ×20, (b) ×100).

dermis. The histological features are similar to NLCS (Hoffmann-Zurhelle) (1), which was originally classified into two clinical types, a multiple form and a solitary form. Mehregan et al. (2) proposed the term "pedunculated lipofibroma" for the solitary form of nevus lipomatosus, in view of its distinctive clinicopathological features.

In the multiple type of NLCS, the lesions are either congenital or develop during the first three decades of life. The distribution is usually systematized, linear, or along the lines of skin folds, but is occasionally random. The sites of predilection are usually in the pelvic girdle area, most commonly the buttocks, sacrococcygeal region, and the superior, posterior thighs. The solitary nodular or papular type of NLCS, or pedunculated lipofibroma, occurs later in life (usually over 20 years of age) and is found on the axilla, knee, ear, or skin of the scalp. To our knowledge, this is the first reported case of a pedunculated lipofibroma occurring on the palm.

The main histological abnormality in either type of NLCS is ectopic fatty tissue in the upper dermis, but the amount is variable. Excessive, loose, or irregular organization of the connective tissue has been noted in many cases. The blood vessels are frequently increased in number in the upper dermis, and small foci of fat cells often surround

them (3). In most cases, staining with alcian blue shows substantially increased deposition of mucopolysaccharides in the reticular dermis and fatty tissue (4).

Clinically, the differential diagnosis for a pedunculated lipofibroma includes other benign papillomas, including acrochordons, seborrheic keratosis, nevocellular nevi, verrucae, neurofibromas, fibroepithelioma of Pinkus, and eccrine poroma (5). The majority of these entities can readily be excluded histologically.

REFERENCES

1. Hoffmann E, Zurhelle E. Über einen naevus lipomatodes cutaneus superficialis der linken Glutäalgegend. *Arch Dermatol Syphilol* 1921; 130: 327–333.
2. Mehregan AH, Tavafoghi V, Ghandchi A. Nevus lipomatosus cutaneus superficialis (Hoffmann-Zurhelle). *J Cutan Pathol* 1975; 2: 307–313.
3. Öztürkcan S, Terzioğlu A, Akyol M, Altınor S, Yildiz E. Pedunculated lipofibroma. *J Dermatol* 2000; 27: 288–290.
4. Nogita T, Wong TY, Hiden A, Mihm MC, Kawashima M. Pedunculated lipofibroma. A clinicopathologic study of thirty-two cases supporting a simplified nomenclature. *J Am Acad Dermatol* 1994; 31: 235–240.
5. Kwon KS, Seo KH, Jang HS, Chung TA. A case of apple-shaped pedunculated lipofibroma. *J Dermatol* 1997; 24: 258–261.