Case Report

Fibrous histiocytoma: a painful skin tumour in a Chinese lady

織維組織細胞瘤：華人女性患有疼痛性皮膚腫瘤

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Introduction

Fibrous histiocytoma or a more familiar name to dermatologist, dermatofibroma, is a common benign dermal tumour composed of fibrohistiocytic cells.\(^1\)\(^2\) In spite of the fact that dermatofibroma is usually not difficult to diagnose, the deceptive cellular polymorphism and varying architectural pattern can sometimes be quite perplexing. Confusion may arise with respect to the biological behaviour of the lesion.\(^3\)

Case report

A 31-year-old Chinese woman had a painful lump over her left upper arm. Histopathological examination confirmed fibrous histiocytoma.

A 31 歲華人女性患者於其左側上臂部出現疼痛性包塊。組織病理學檢查確診為織維組織細胞瘤。

Keywords: Dermatofibroma, fibrous histiocytoma

關鍵詞：皮膚纖維瘤、織維組織細胞瘤
result for CD68 and negative results for S-100, CD31, cytokeratin, actin and desmin. It was consistent with fibrous histiocytoma.

**Discussion**

Fibrous histiocytoma is a benign dermal tumour composed of fibrohistiocytic cells.\(^1\)\(^2\) It is a common cutaneous soft tissue tumour and diagnosis is usually not difficult if the presentation is classical.\(^3\) In spite of its commonness, there is a caveat in the diagnosis. Given its unusual cellularity and haphazard architecture, it is not uncommon for confusion to arise concerning the biological behaviour of the lesion.\(^3\)

Our case is a good illustration of how trickery the lesion can be as it is not a classical presentation of fibrous histiocytoma (dermatofibroma). Based on the morphology, several benign and malignant lesions can mimic this condition. Benign lesions include haemangioma, blue naevus and spitz naevus; malignant lesions include cutaneous B cell lymphoma, dermatofibrosarcoma protuberan, kaposi's sarcoma and nodular melanoma. Haemangioma refers to benign overgrowth of blood vessel in skin. For deep-seated blood vessel within skin, it usually assumes bluish and swollen-up appearance.\(^4\) Blue naevus refers to blue black firm papule or nodule. It usually has an early onset and is most frequently in extremities.\(^5\) Spitz naevus is usually a red or pigmented papule or nodule. It is a skin disease of the young.\(^5\) Cutaneous B-cell lymphoma may be difficult to diagnose since there is only subtle morphologic difference between this malignant skin condition and its benign counterpart. It is characterised by solitary or multiple reddish or purplish nodules. The majority of the lesions are low grade malignancy with indolent behaviour even without active treatment.\(^6\) Dermatofibrosarcoma protuberan is an uncommon locally aggressive sarcoma which grows slowly over months to years. It usually affects young or middle aged adults with features of violaceous or red-brown

**Figure 1.** This clinical picture showed a bluish brown well circumscribed solitary nodule over left upper arm.

**Figure 2.** This punch biopsy showed a dermal spindle cell mesenchymal proliferation with overlying intact pigmented hyperplastic epidermis (H&E x 10).

**Figure 3.** The proliferation is formed of fibrohistiocytic cells in storiform array (H&E x 400).
Kaposi's sarcoma has characteristic appearance of bluish purple or blackish nodule or plaque mainly over distal lower extremities. It is associated with viral infection human herpes virus 8. The clinical behaviour could be quite diversified, from indolent to fulminant. Nodular melanoma behaves in a very aggressive manner and is unlikely in our patient.

There are two schools of thought concerning the pathogenesis of this lesion, namely reactive inflammatory process or a true neoplastic process. It is still a subject of debate. The lesion is associated with history of trauma in 20% of the cases. Examination of different stages of the lesion reveals that it may basically be an excessive reparative process of the skin. Owing to its polymorphic nature, different variants of histiocytoma have been described. These variants include cellular fibrous histiocytoma, aneurysmal (angiomatoid) histiocytoma, atypical (pseudosarcomatous) fibrous histiocytoma or dermatofibroma with monster cells, palisading fibrous histiocytoma, epithelioid fibrous histiocytoma and lipidized (ankle type) fibrous histiocytoma.

It shows female predilection and usually occurs in the age group 20 to 50. Extremities are usually the site of occurrence. Early lesion can appear reddish or purplish whereas typical dermatofibroma is brownish. With the passage of time, the nodularity lessens and the lesion looks more akin to a scar. This is a benign lesion but having said that, local recurrence does occur with the highest recurrence rate in the cellular benign fibrous histiocytoma variant in up to 26% comparing with ordinary fibrous histiocytoma less than 1%. Surgical excision is the treatment of choice.

In summary, our case has clearly re-emphasised the intriguing nature of dermatofibroma. The highly variable clinical appearances have sometimes given rise to significant difficulty in diagnosis. The classical presentation of dermatofibroma is brownish firm papule (usually less than 5 mm in diameter) with positive dimple sign. In contrast, the skin lesion in our patient fell completely out of the scope of usual morphology of dermatofibroma.

References