

# Solid Tumour Section

## Mini Review

# Skin: Cutaneous benign fibrous histiocytomas

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## Classification

### Note

Cutaneous benign fibrohistiocytic (BFH) tumours are among the most common soft tissue lesions. Their biological nature, in particular whether they are neoplastic or reactive, has long been disputed.

## Clinics and pathology

### Etiology

Unknown. Sometimes, it is associated with insect bites and vaccines.

### Epidemiology

It is among the most common soft tissue tumors of the skin. Its polymorphic histologic appearance is responsible for the array of different names by which it has been known in the literature in the past.

### Clinics

The cutaneous benign fibrous histiocytoma is a solitary, slowly growing, asymptomatic pigmented papule that usually makes its appearance during early or mid-adult life, with a slight predilection for females. It is mainly located on the extremities. The lesions are elevated or peduncolated with a diameter ranging from a few millimeters to a few centimeters. The overlying skin may assume a red or red-brown color. An excessive overdeposit of haemosiderin can be responsible of a black color. Clinical and histological diagnosis is straightforward in most cases. However, difficulties in diagnosis may arise in cases when the clinical and histological features deviate from normal appearance.

### Pathology

It has a predominant dermal location. It is composed of

a mixture of fibroblastic, myofibroblastic-like, and histiocytic cells, often arranged in a cartwheel or storiform pattern and accompanied by varying numbers of inflammatory cells, foam cells and siderophages. When a single unusual histological feature predominates it may mask the typical features and uncertain diagnosis may arise. In addition to the common pattern, a number of variants are currently recognized some of which may mimic other benign or malignant lesions. They are: cellular benign fibrous histiocytoma (it mimics dermatofibrosarcoma protuberans and leiomyosarcoma), aneurysmal ("angiomatoid") benign fibrous histiocytoma (it may resemble a melanocytic or vascular tumor or angiomatoid malignant fibrous histiocytoma), epithelioid benign fibrous histiocytoma (it can be confused with Spitz nevus), atypical (pseudosarcomatous) benign fibrous histiocytoma (it can be misdiagnosed as a malignant tumor), benign fibrous histiocytoma 'ankle type' (it may mimic a xanthoma), palisading, and atrophic fibrous histiocytoma.

### Evolution

These lesions may regress spontaneously, sometime they recur: the cellular and aneurysmal variants may recur more often than the other subtypes.

## Genetics

### Note

Very limited information are available concerning the genetics or clonality of these lesions, most likely reflecting the fact that suitably prepared tissue is rarely collected from these common cutaneous lesions, which are generally excised in an outpatient setting.

## Cytogenetics

### **Cytogenetics Morphological**

Clonal chromosome changes are present in the 38% of the cases reported in the literature. No recurrent chromosome abnormalities have been observed. The clonal changes are more frequent in the cellular variant, and they are not characterised by chromosome abnormalities generally associated with other more aggressive fibrohistiocytic tumours with which they may be confused. Numerical changes as well as structural abnormalities, including ring chromosomes have been described. Although the aberrations did not correlate with the histological subtypes, the presence of clonal chromosome changes in a number of cases supports a neoplastic pathogenesis of BFH.

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