# *FIBROHISTIOCYTIC TUMORS OF THE SKIN*

*ESSAY*

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in Dermatology and Venereology

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# *ABSTRACT*

Fibrous and fibrohistiocytic tumors of the skin are a heterogeneous group of dermal and dermal/subcutaneous mesenchymal neoplasms with fibroblastic, myofibroblastic and histiocytic differentiation, often occurring side by side in the same tumor. Fibrohistiocytic lesions of the skin contain both benign and malignant tumors. Electron microscopy and immunohistochemical staining led to a revolution in our understanding and diagnosis of the fibrohistiocytic tumors of the skin.



**KEY WORDS :** Fibrohistiocytic tumors, fibrous tumors, immunohistochemistry.

بسم الله الرحمن الرحيم

# [وقل رب زدنى علما]

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|---|---|
| **AFH** | Aneurysmatic fibrous histiocytoma |
| **AFX** | Atypical fibroxanthoma |
| **APFH** | Atypical (pseudosarcomatous) fibrous histiocytoma |
| **C3** | Complement 3 |
| **CD31** | Platelet endothelial cell adhesion molecule-1 |
| **CD34** | Human hematopoietic progenitor cell antigen |
| **CD45** | Leukocytic common antigen |
| **CD68** | Also called KP1, macrosialin |
| **CD99** | (T-cell surface glycoprotein E2) |
| **CFH** | Cellular fibrous histiocytoma |
| **DF** | Dermatofibroma |
| **DFSP** | Dermatofibrosarcoma protuberance |
| **DMF** | Dermatomyofibroma |
| **EFH** | Epithelioid fibrous histiocytoma |
| **EMA** | Epithelial membrane antigen |
| **Fator IIIxa** | Fibrin-stabilizing factor |
| **FC** | Crystallizable fragment |
| **FH** | Fibrous histiocytoma |
| **GFAP** | Glial fibrillary acidic protein |
| **HIV** | Human immunodeficiency virus |
| **HMB45** | Human melanin black |
| **HMFG** | Human milk fat globule |
| **HLA-DR** | Human leukocyte antigen – D subregion of the major histocompatibility complex |
| **IgG** | Immunoglobulin G |
| **KD** | Kilo Dalton |
| **MFH** | Malignant fibrous histiocytoma |

| | |
|---|---|
| **μm** | Micrometer |
| **Myo-D1** | Myogenic nuclear regulatory protein |
| **PDGF** | Platelet – derived growth factor |
| **SFT** | Solitary fibrous tumor |
| **Syn** | Synonym |
| **TGF-B** | Transforming growth factor B1 |
| **vWF** | Von Willebrand factor (factor VIII-related antigen) |
| **WHO** | World health organization |
| **XG** | Xanthogranuloma |

# Introduction and Aim of the Work

Fibrous tumors and tumor-like lesions form a large, diverse group of distinct entities that differ greatly in their clinical behavior. Some are completely benign and rarely if ever recur, even after incomplete excision. Others are poorly circumscribed and infiltrate the surrounding soft tissues, with a tendency to recurrence unless they are widely excised initially. Others are frankly malignant tumors that frequently recur and metastasize ***(Weiss and Goldblum, 2001)***.

The concept of fibrohistiocytic lesions is attended by long-standing; controversy. Originally, the notion was based on apparent features of both fibroblastic and histiocytic morphology of neoplastic cells when cultured in vitro. However, it is now recognized that the cytologic features of these differentiation pathways are not specific. Despite this, the term "fibrohistiocytic tumors" is familiar and is still being used in the classification of mesenchymal neoplasms. Accordingly this term is retained for convenience ***(Shea and Prieto, 2003)***.

Fibrohistiocytic lesions of the skin contain both benign and malignant tumors. Fibrous histiocytoma, Juvenile xanthogranuloma, reticulohistiocytoma and atypical fibroxanthoma are among the benign lesions of this group. While malignant fibrous histiocytoma and variants comprise the malignant lesions of fibrohistiocytic neoplasms ***(Fletcher et al., 2001)***.

The fibrohistiocytic tumors of the skin are a heterogeneous group of dermal and dermal / subcutaneous mesenchymal neoplasms with fibroblastic, myofibroblastic and histiocytic (monocytic / macrophage – like) differentiation often occurring side by side in the same tumor. In this context, the term "fibrohistiocytic" denotes the morphologic similarity of these cells to fibroblasts and histocytes on light microscopy; it does not prove the histogenesis of the neoplasm. Morphologically, the term "histiocyte" refers to a macrophage – like or epithelioid cell differentiation in the dermal soft tissue ***(Hugel, 2006)***.

## Aim of the Work :

The aim of this study is to revise this group of fibrohistiocytic tumors of the skin, and to compare it with the group of pure fibrous tumors, which show fibroblast proliferation only. This will be achieved by trying to collect all possible data in the literature to help in the comparison especially from the phenotypic and immunohistochemical aspects, in order to determine if the term "fibrohistiocytic lesions" deserves to be retained on more solid bases rather than familiarity and convenience.