

FIBROHISTIOCYTIC TUMORS OF THE SKIN

ESSAY

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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.

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[وقل رب زدني علما]

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List of Abbreviations

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.