

## Basal Cell Carcinoma Overlying Histiocytofibroma

G. ROTTELEUR, J. M. CHEVALLIER, F. PIETTE  
and H. BERGOEND

*Department of Dermatology, Regional Hospital, 1, Place de Verdun,  
59037 Lille Cedex, France*

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A case of basal cell epithelioma overlying a long-standing histiocytofibroma is presented. The association of these two tumors is a rare finding. The role of dermal factors in the pathogenesis of epidermal tumors is briefly discussed, just as the controversy about the reactive or neoplastic nature of the epidermal change. *Key words: Dermatofibroma; Basal cell epithelioma; Epidermal changes.* (Received May 11, 1983.)

H. Bergoend, Department of Dermatology, Regional Hospital 1, Place de Verdun, 59037 Lille Cedex, France.

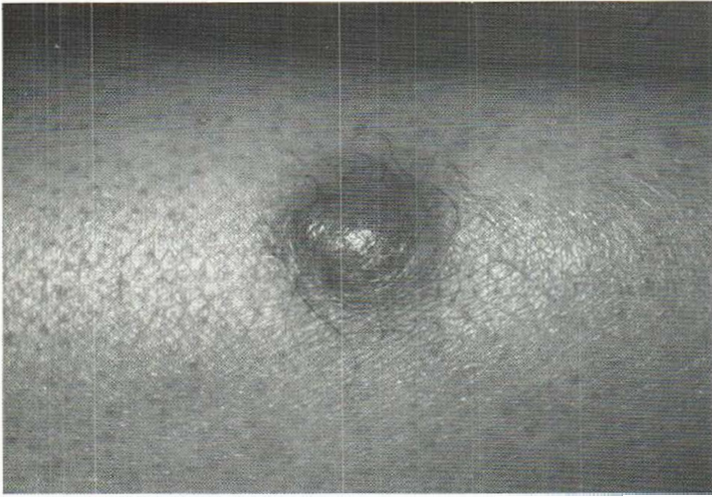
The epidermal changes overlying histiocytofibroma are well known (Biberstein 1931 (1)). If association with epidermal atrophy is observed in about 5 per cent of the cases (Halpryn (2)), the hyperplastic epidermal changes are more usual (50 to 80% for Halpryn (2)). They constitute a wide spectrum, extending from simple acanthosis, the more frequent modification, to hyperkeratosis (kerato-acanthosis (2)), seborrheic wart-like proliferation, pseudo-epitheliomatous hyperplasia, hair germ-like proliferation of basal cells, basal cell buddings, superficial multicentric basal cell carcinoma, and more exceptionally nodular basal cell carcinoma. We observed a case of histiocytofibroma presenting several different changes of the overlying epidermis.

### CASE REPORT

A 46-year-old Algerian woman presented with a large nodular lump in the pretibial area of right leg. The lesion had begun about ten years ago and had enlarged progressively. It occasionally bled after minor traumatism, but was not painful. Physical examination showed a round, raised, hard, 4×5 cm, nodule. There were neither visible overlying telangiectases, nor superficial ulceration. The lesion was brown-violaceous and somewhat paler at the periphery. The regional lymph nodes were not enlarged. The clinical impression of a large histiocytofibroma or possibly a malignant melanoma led to excision with wide margin and graft.

Hematoxylin-eosin-stained sections showed a well defined dermal mass, extending from mid-dermis to hypodermis, which consisted mainly of fibroblasts and large histiocytes, in contact with multinuclear giant cells and abundant collagen production.

Overlying the histiocytofibroma, several epidermal changes were discovered: common *hyperacanthosis*, and especially, several well-defined islands of round to oval *basophilic cells*, without desmosomal connections visible on light microscopy, and showing nuclear atypia, peripheral palisading and retraction spaces. Some of these islands were connected with the surface epidermis, reminiscent of "hair germ-like proliferation" or "superficial multicentric basal cell carcinoma". Other masses were laying free in the dermis, deep coming into contact with the histiocytofibroma: they were suggestive of *solid basal cell carcinoma*.



*Fig. 1.* Clinical aspect of the lesion.

#### COMMENT

The frequency of the association between histiocytifibroma and basal cell carcinoma is contested varying from 8% (2) to less than 0,5% (3). Moreover, Voelker-Kimming (6) did observe any case of basal cell epithelioma overlying 661 histiocytifibromas.

In our observation, the histologic diagnosis of basal cell carcinoma is not questionable (basophilic cells nuclear atypia—peripheral palissading—retraction spaces). But the epithelioma is not clinically detectable, like in most cases.

The lack of clinical evidence for malignancy have caused controversy as to the reactive or neoplastic nature of these epidermal changes. Whereas Schoenfeld (4), Caron (5), interpreted them as reactive benign changes, indisputable observations of nodular basal cell carcinoma, with deep dermal invasion or with ulceration argue for malignity (5, 6, 7) even if these neoplastic changes had a little aggressive behaviour.

After reviewing literature, it appears that basal cell carcinomas are more often observed in association with large long-standing histiocytifibroma of the legs, in women. Our case is according to these data.



*Fig. 2.* H. E. S. section. Magnification  $\times 25$ . Histologic aspect of an upper part of the lesion: *a*, superficial basal cell carcinoma; *b*, solid nodular basal cell carcinoma; *c*, top of the histiocytifibroma.



Fig. 3. H. E. S. section. Magnification  $\times 100$ . A = tumor islands of basophilic cells, with peripheral palisading and retraction spaces. B = histiocytofibroma cells.

Regarding the cause of the epidermal changes overlying histiocytofibromas, Pinkus (8) attributes a major role to the connective tissue, a hypothesis that is supported by transplantation experiments of Van Scott (9) who performed isografts of basal cell carcinoma successfully with adherent stroma but encountered squamous differentiation when basal cell carcinoma without supporting stroma was transplanted. In the same way, the data obtained by Pinto (10) from studies about rats submitted to carcinogens clearly indicate that dermal alterations preceding squamous cell carcinoma are different from those associated with basal cell carcinoma. Despite these experimental data, the causative mechanism of the epidermal alterations overlying histiocytofibromas remains elusive.

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