

## Dermatofibrosarcoma Protuberans and Basal Cell Carcinoma

Sir,

We report a case of basal cell carcinoma overlying dermatofibrosarcoma protuberans (DFSP). A multitude of epidermal changes are commonly associated with dermatofibromas and rarely with DFSP. To our knowledge, this is the first case report of such an association between basal cell carcinoma and DFSP.

### CASE REPORT

A 70-year-old male presented with an asymptomatic slowly growing brownish nodular lesion involving the left ear. The patient had noticed a rapid growth of the lesion in the previous 3 months. A biopsy followed by wide excision was performed. The biopsy consisted of a piece of skin measuring 1 cm with a firm dermal lesion. Microscopic examination showed a skin with basal cell carcinoma (Fig. 1) and a cellular dermal lesion. The lesion is composed of relatively uniform spindle-shaped cells arranged in a distinctive cartwheel or storiform pattern. Mitosis was infrequent. The tumour cells were positive for vimentin and CD34 (Signet Laboratories Inc) and negative for cytokeratin epithelial membrane antigen S100, actin and desmin (Dako). Their appearance indicated a diagnosis of a DFSP and basal cell carcinoma. Further resection revealed a residual cellular tumour with similar appearance involving the subcutaneous tissue.

### DISCUSSION

DFSP, first described in 1924 as "a progressive and recurrent dermatofibroma", is a nodular cutaneous tumour characterized by a distinctive storiform growth pattern and local recurrence. It is generally regarded as a neoplasm of intermediate malignancy with rare distant metastasis. DFSP typically arises on the trunk and proximal extremities. Head, neck and scalp lesions have also been described. It is more frequent in men, with a peak incidence during the third decade of life (1).

The tumour usually develops as a nodular or multinodular, slowly growing cutaneous mass and appears to evolve from a dermal fibrous plaque stage. Local recurrence after simple excision occurs in 30% of cases. Metastases usually occur after repeated recurrence, often with fibrosarcomatous transformation and, because of this and high recurrence rate, wide excision is advised.

Histogenesis of the DFSP is controversial. Fibroblastic, histiocytic or perineural cells have been suggested as the cell of derivation. DFSP is considered to have no precipitating cause and in most case reports no comment is made of possible etiological factors. A history of prior trauma is usually mentioned following BCG vaccination and ionizing radiation for basal cell carcinoma (2).

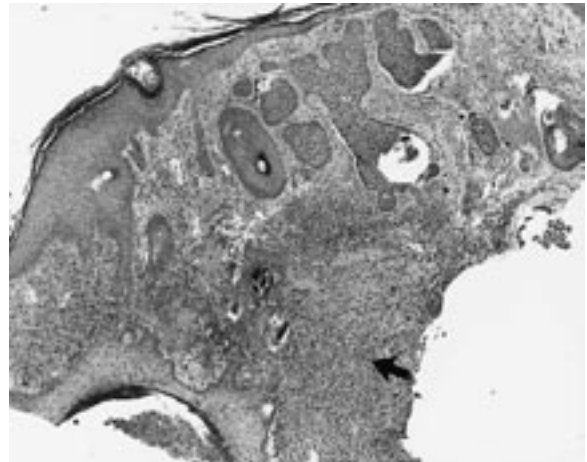


Fig. 1. Basal cell carcinoma overlying dermatofibrosarcoma protuberans (arrow).

A multitude of epidermal changes are commonly associated with dermatofibromas, and very rarely with DFSP. These include epidermal acanthosis, occasional pseudoepitheliomatous hyperplasia, hair follicle proliferation, and basal cell carcinoma-like changes. A few cases of well-documented basal cell carcinoma have been reported (3). The most likely explanation for this coexistence of DFSP and basal cell carcinoma is incidental, as the latter commonly occurs on sun-exposed skin.

### REFERENCES

1. Conolly JH, Evans HL. Dermatofibrosarcoma Protuberans: a clinicopathologic review with emphasis on fibrosarcomatous area. *Am J Surg Pathol* 1992; 16: 921-925.
2. McLelland J, Chu T. Dermatofibrosarcoma protuberans arising in BCG vaccination scar. *Arch Derm* 1988; 124: 496.
3. Goeffe LTC, Helvig EB. Basal cell carcinomas and basal cell carcinoma-like changes overlying dermatofibromas. *Arch Derm* 1975; 111: 589-599.

Accepted November 24, 1997.

K. Ibrahim and J. M. Radhi  
Department of Pathology, Royal University Hospital, 107 Hospital Drive, Saskatoon, Saskatchewan, S7N 0W8, Canada.