1774 Letters

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## Malignant Melanoma Treated with Natural Interferons Alfa and Beta and DAV

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A 60-YEAR-OLD man was referred to our department in July 1986. Examination showed a large macular lentiginous melanoma, measuring  $1.5 \times 1.2$  cm, on the sole of his left foot. The tumour was excised surgically on 15 August. Light microscopy revealed level V (pT4) invasion by neoplastic cells. Accordingly, the patient was diagnosed as being at stage III (pT4a, N0, M0). Systemic chemotherapy (dacarbazine/nimustine/vincristine) DAV [1] was given until August 1986. The patient maintained complete remission for about 4 months until December. He then noticed metastatic tumours on the left thigh and in the inguinal region. Natural interferon alfa (IFN-α) was administered, surgical excision was done and systemic DAV was given until March 1987. Natural IFN was subcutaneously injected. IFN-β 3μU was given twice a month for maintenance. The patient has since maintained complete remission for about 5 vears from February 1987.

Before IFN- $\alpha$  therapy, only a small number of infiltrating cells were detected in the lesion with a series of monoclonal antibodies and hetero-antisera. After this treatment, the infiltrating cells increased. Demarcated T-cell and B-cell regions were evident around the clusters of neoplastic cells.

The 5-year survival of patients with stage III malignant melanoma excluding N2 treated with DAV plus IFN- $\beta$  is better than that of patients treated with BCG plus DAV, picibanil (OK432) plus DAV, DAV alone or dacarbazine alone. The 5-year survival of patients treated with IFN- $\beta$  plus DAV or dacarbazine was 84%, whereas that of patients treated with BCG plus DAV or dacarbazine, and picibanil plus DAV or dacarbazine was 58 and 56%, respectively.

Recently, biological response modifiers (BRMs) have been used therapeutically against malignant neoplasms [2–4], but their effect is not sufficient to cure. Although an increased number of tumour infiltrating cells are seen in the lesion after local injection of BRMs, such as IFN- $\alpha$ , IFN- $\beta$ , IFN- $\gamma$  or tumour necrosis factor alpha, these changes are not significant. BRMs may exert an immunopotentiating effect via the immune system of the patient in addition to direct toxicity against tumour cells [4–6]. Combination therapy with BRMs and chemotherapeutic agents has been used in patients with advanced malig-

nancy [3,8–10]. Combination therapy with IFN- $\beta$  plus DAV is one such treatment. Our experience with this combination did not demonstrate a significant advantage compared with other types of therapy for stage III malignant melanoma.

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## Multiple Myeloma in Two Sisters

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FAMILIAL OCCURRENCE suggests a role for genetic factors in the pathogenesis of multiple myeloma. We describe multiple myeloma in two sisters. Case 1 (52, admitted in December 1989 because of osteolytic lesions in ribs and spine); when first seen she was confused and dehydrated with chest and back pain.

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