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Sarcoma complicating therapy with cyclophosphamide

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Summary

A patient is described who developed a poorly differentiated sarcoma after cyclophosphamide was used to treat his rheumatoid arthritis. This case emphasizes the importance of considering neoplastic disease as a potential hazard associated with the use of immunosuppressive drugs.

Introduction

The development of neoplasms after immunosuppressive therapy has been reported previously (Doll and Kinlen, 1970). The great majority have been either of the lymphoreticular type, frequently involving the central nervous system, or cancers involving superficial epithelium. The occurrence of a poorly differentiated sarcoma in a patient during treatment with cyclophosphamide is reported.

Case history

The patient, a janitor aged 62, initially presented in August 1969 with painful hands and feet. A diagnosis of seropositive rheumatoid arthritis was made and treated with chloroquine phosphate 250 mg daily for 1 year. In November 1972 there was an exacerbation of his joint symptoms and he was started on prednisolone 15 mg daily but continuing disease activity necessitated the addition of cyclophosphamide 50 mg twice daily in February 1975.

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In August 1975 he was admitted to the Manchester Royal Infirmary. There was a 2-month history of progressive exertional dyspnoea and 10 kg weight loss. Examination revealed a hypercorticotoid cyanosed patient with finger clubbing, a left pleural effusion and chronic rheumatoid joint changes. Investigations showed a haemoglobin of 13.6 g/100 ml; white cell count of 6,900 with a normal differential; an ESR of 40 mm in 1 hr (Westergren). Routine biochemical tests were all normal. A chest X-ray film confirmed the presence of a left pleural effusion. Cytological examination of the blood-stained pleural aspirate showed it to contain neoplastic cells and needle biopsy of the pleura revealed infiltration with anaplastic tumour cells.

The patient's clinical condition deteriorated and he died 1 week later. At post-mortem the pleura was covered with a grey nodular tumour but sections of the bronchi failed to reveal any primary tumour. Histological examination of the tumour confirmed it to be a poorly differentiated sarcoma.

Discussion

The alkylating agent cyclophosphamide appears to be an effective therapeutic agent in certain connective tissue disorders including rheumatoid arthritis (Cooperating Clinics Committee, 1970). The adverse side effects of this drug constitute a major limitation to its widespread clinical use and in particular there is a possible risk of malignant transformation. A full

explanation for the development of malignancy in the immunosuppressive drug-treated patient is not clear. Patients with rheumatoid arthritis show an appreciable increase in chromosomal abnormalities during therapy with cyclophosphamide (Tolchin *et al.*, 1974) and it is possible that mutant cells are not properly recognized and destroyed as a result of defects in the immunosurveillance mechanism (Burnet, 1967). The interpretation that the present patient developed a tumour related to his immunosuppressive therapy is conjectural but the fact remains that tumour development should be considered as a potential hazard of cyclophosphamide therapy.

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Histiocytic medullary reticulosis with hypogammaglobulinaemia and disseminated intravascular coagulation

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Summary

A case of histiocytic medullary reticulosis in a 45-year-old man is described. The presentation with a swinging pyrexia is typical. Associated features were very low levels of all immunoglobulins and proved disseminated intravascular coagulation. Heparin therapy was given and the difficulties of controlling such treatment are demonstrated. It is concluded that an increased awareness of the condition as a cause of pyrexia might lead to an improvement in prognosis.

Introduction

Histiocytic medullary reticulosis (HMR) is a rare disorder with a rapidly progressive course, characterized by wasting, fever and enlargement of liver and spleen. The essential anatomical change is a proliferation of atypical histiocytic cells, mainly in the spleen, liver, lymph nodes and bone marrow and was first reported by Scott and Robb Smith (1939).

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Case report

A 45-year-old man was referred to the East Birmingham Hospital with rigors and severe sore throat of 1 week's duration. He had suffered from depression for 4 months and had been under treatment for the last month with tranlycypromine (parlate), a monoamine oxidase inhibitor. He was of good general physique, the skin showed patches of seborrhoeic eczema but no bruising or petechial haemorrhage. There were deep ulcers covered with a grey exudate on the fauces and the spleen was firm and just palpable. He had a swinging pyrexia of up to 40°C.

The haemoglobin level fell from 12.3 g/dl on admission to 7.9 g/dl by the ninth day. There was evidence of extensive haemolysis with a four-fold rise in unconjugated bilirubin and an excess of urobilinogen in the urine. Liver enzymes were moderately elevated. An initial peripheral white blood count of $17 \times 10^9/l$ with a differential of 87% polymorphs, 5% lymphocytes and 8% monocytes, rose slowly during the illness to reach $33 \times 10^9/l$ on the seventh day but still with a marked lymphopenia