An atypical case of Sézary's syndrome with leukaemic transformation

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SÉZARY's syndrome is a very rare form of reticulosis and the original description was given by Sézary & Bouvrain (1938). In Great Britain the first case was reported by Wilson & Fielding (1953), although Israëls (1951) reported a few cases under the name of reticulum cell reticulosis with presence of cells in the peripheral blood morphologically identical with those described by Sézary. Since then cases have been reported from time to time (Alderson, Barrow & Turner, 1955; Main, Goodall & Swanson, 1959; Brody *et al.*, 1962), including a series of seven cases from the Mayo Clinic (Taswell *et al.*, 1961). The clinical picture in all these cases was fairly typical and no leukaemic complication has been recorded. The case reported here is atypical and the patient developed leukaemia terminally.

Case history

Mr F.B., aged 80 years, was admitted on 17 September 1965. He had been well until about 9 months prior to admission when he noticed that he was beginning to feel weak and tired and could not walk more than 200 yd. Previously he could walk about a mile without any difficulty. About 4 months later he developed painless lumps all over the body. They appeared gradually, being more widespread over the trunk than the extremities. None of them resolved or ulcerated and there was no associated itching. There was no history of bruising or bleeding. More recently he had experienced palpitations from time to time and complained of undue breathlessness on exertion. There was no history of chest pain or ankle swelling. No history of cough or bronchitis was given. For the past 3–4 months he had been getting severe frontal headaches with 'buzzing sensations' over the forehead, and for this he was taking dimenhydrinate. He had not taken any other drug. There was nothing else of significance.

Past history. Carcinoma of urinary bladder—resected in 1940 and subsequently treated with implantation of radon seeds. History of 'acidity

and indigestion' in 1963 when he was treated successfully with alkalis. July 1963: had a chest X-ray during mass radiography following which he developed a bright red patch over the umbilicus. The patch disappeared without any treatment in 6–8 weeks.

On examination: An emaciated old man with leonine facies, marked pallor, subconjunctival haemorrhage, petechiae over the shin bones, pigmented skin with numerous painless non-ulcerated firm swellings of varying sizes between 0.5 mm and 2 cm in diameter (Fig. 1). The skin of the

FIG. 1

palms and soles did not show any characteristic features. No ulceration of the skin was seen. There was generalized lymphadenopathy. There was slight cardiomegaly with an apical systolic murmur; and scattered expiratory rhonchi; the liver was palpable four fingers breadth below the costal margin, not tender, firm with smooth surface; there was no enlargement of the spleen and kidneys were not felt, and there was no evidence of free fluid in the peritoneal cavity. Nothing abnormal was detected in the central nervous system. Fundoscopy normal.

Investigations. Haemoglobin, 6.8 g/100 ml; WBC, 7900/mm³; platelets, 73,000/mm³; ESR, 44 mm/hr (Westergren); neutrophils, 11%; metamyelocytes, 2%; lymphocytes, 54%; monocytes, 3%; atypical cells, 28%; normoblasts, 2%.

The blood film was reported as follows: 'red cells are slightly hypochromic and show marked aniso- and poikilocytosis. In the white cell series there is a remarkable fall of granulocytes with increase of lymphocytes and the presence of a fair proportion of morphologically unidentifiable cells; some of them are atypical showing cytoplasmic vacuolation. There are occasional normoblasts. The platelets are scanty.' The film was reviewed and the unidentifiable cells were found to be atypical mononuclear cells with vacuoles in the cytoplasm arranged in a necklace fashion which contained PAS-positive material and were finally identified as Sézary's cells. The sternal marrow aspirate showed predominance of these atypical cells, some of them with the presence of nucleoli and some showing mitotic division (Fig. 2). The megakaryocytes were scanty.

Skin biopsy. The epidermis shows parakeratosis and few small foci of mononuclear cells. In the dermis there is a dense infiltration of mononuclear cells with scattered polymorphs and lymphocytes.

X-rays. Chest—normal. Dorsi-lumbar spine

FIG. 2

showed evidence of early osteoarthritis with some porotic changes as well. Pelvis showed combination of osteoporosis and thickening of remaining trabeculae and widening of pubic rami, suggesting the appearances of Paget's disease. Presence of radon seeds in the urinary bladder was also reported.

Blood urea, 31 mg/100 ml; Na, 140 mEq/l; K, 4.4 mEq/l; Cl, 101 mEq/l; HCO₃, 60 vols CO₂/100 ml; SLAP, 700 units; serum Ca, 9.0 mg/100 ml; P, 3.6 mg/100 ml; acid phosphatase, 4.5 units with alcohol stable 3.5 units.

Thymol turbidity, 2.4 units; colloidal gold, negative; bilirubin, 1.4 mg/100 ml; alkaline phosphatase, 68.0 units; albumin 3.6 g/100 ml; globulin, 1.4 g/100 ml; SGOT, 36 units; SGPT, 70 units.

Diagnosis. From the peripheral blood and skin biopsy reports, and clinical picture, a diagnosis of Sézary's reticulosis was made. In view of the marrow picture it was concluded that the disease was complicated by the development of leukaemia. Because of the X-ray and biochemical findings, the existence of Paget's disease was suspected.

Treatment. Because of the normal white cell count, low platelet level and involvement of the marrow, treatment was started with a combination of steroids and mustine: betamethasone—4 mg/day, and two doses only of 6 mg Trillekamin intravenously at 48-hr intervals. The treatment was supplemented by repeated blood transfusions.

Progress. Within a few days the patient developed marked leucopenia and thrombocytopenia with the lowest counts: white cells, 800/mm³; platelets, 63,000/mm³.

Anaemia persisted with a maximum haemoglobin of 55% in spite of repeated blood transfusions. The patient's condition rapidly deteriorated; he developed extensive haemorrhages all over the body, including epistaxis, a severe throat infection and bilateral bronchopneumonia from which he did not recover. Total duration of stay in the hospital was 42 days.

Discussion

In the reported cases of Sézary's reticulosis, the clinical picture is fairly typical, and this is characterized by a generalized exfoliative dermatitis with intense pruritus, generalized lymphadenopathy, hepatomegaly, hyperkeratosis of palms and soles, leonine facies, alopecia, increased pigmentation of the skin and good general health until death occurs approximately 5 years after the onset of symptoms. The cutaneous infiltrate and the peripheral blood show the presence of mononuclear cells which are diagnostic. In the past the marrow has invariably been normal and when a few Sézary

cells have been found in the marrow, this has been ascribed to contamination with peripheral blood. Our patient did not experience any pruritus at all at any stage of the disease and there was no evidence of hyperkeratosis of palms and soles and, in addition to the leonine facies, the patient showed features of Paget's disease which was not noted in previously recorded cases. Also there was anaemia as well as thrombocytopenia which were not found in other cases, although persistent thrombocythaemia was noted in Wilson & Fielding's case (1953). The presence of these abnormalities possibly indicated bone-marrow involvement and the smears from the sternal marrow aspirate showed numerous Sézary cells, some of them with presence of nucleoli, some showing mitosis. From these findings it was concluded that leukaemic transformation took place in this case and it may be suggested that the site of generation of Sézary cells was the bone marrow as well as the skin. Unlike the cases previously described the disease ran a short course of about 9 months instead of 5 years. This rapid deterioration was attributed to leukaemic transformation.

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Localized hirsuties

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THE DISTRIBUTION of body hair is partly a secondary sex characteristic and thus hormone-dependent. Although states of hair deficiency attract more attention than those of hair excess, the latter comprises an interesting group of syndromes, the majority of which are systemic in origin, i.e. associated with hormonal disturbance. There remains, however, a subgroup in which hair overgrowth is a result of purely local factors. It is the purpose of this communication to present two patients in this category and to review the genesis of their condition.

Case No. 1

Mrs P.W., housewife, aged 39, para 6, gravid 6. She presented in May 1964 with a painful ulcer on the left lower medial side of the leg, present for 2 years. During her last pregnancy, 4 years prior to presentation, the left leg had been continuously

swollen. The ulcer appeared 2 years later and varicose veins appeared subsequent to this.

On examination: there were varicose veins in the long saphenous distribution with sapheno-femoral incompetence and a healed ulcer 2.5 cm diameter, 5–7.5 cm above the left medial malleolus. There was minimal surrounding induration and body hair distribution was normal and symmetrical.

On 8 May 1964 she underwent an operation consisting of left sapheno-femoral ligation, stripping of left long saphenous vein and limited subfascial perforator exploration. The wounds healed well. About 2 months after discharge from hospital, she again noticed discomfort at the ulcer site and in relation to the lower part of the perforator exploration wound. The latter area became dusky and indurated, and there was some persistent oedema of the foot. At the same time, new hair