eczema herpeticum. Stern *et al.* (1959) described a type of acute whitlow, a form of cross-infection in hospitals, caused by the same virus. Gardner *et al.* (1962) studied the association of virus infection and intussusception in childhood. In two cases of recurrent intussusception herpes simplex was isolated and it was thought this might be a causal factor. Another interesting manifestation of herpetic infection is erythema multiforme, and the above case is an example. Though a viral cause for erythema multiforme has been considered by many dermatologists, evidence on this point is lacking. In published reports there are only two references. Herpes labialis is a common accompaniment of erythema multiforme and herpes simplex virus has been isolated on occasion both from vesicles (Foerster and Scott, 1958) and from the lungs (Finland *et al.*, 1948).

It seems quite likely that some cases of erythema multiforme exudativum are secondary in some way to infection with herpes simplex virus; although, of course, one cannot exclude the possibility that the herpes simplex is secondary to erythema

multiforme exudativum. The fact that the herpes simplex infection usually precedes this erythema multiforme exudativum perhaps supports the former hypothesis.

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Phenylbutazone Therapy Associated With Leukaemia

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In a recent review of the English literature on the haematological complications of treatment with phenylbutazone (McCarthy and Chalmers, 1964) nine cases of leukaemia and one of leukaemoid reaction were found. Bean (1960) reported the occurrence of leukaemia in six patients who had received the drug. Individual case reports were added by Garrett (1961), Cast (1961), and Cadman and Limont (1962). Lawrence (1960) described the development of a leukaemoid reaction in a patient who had been taking phenylbutazone. Interest in this topic (*British Medical Journal*, 1962) has prompted us to record the following case.

CASE REPORT

A 44-year-old housewife developed rheumatoid arthritis in 1955. Treatment with salicylates and a steroid preparation resulted in some improvement in her condition. In November 1959 phenylbutazone was prescribed and taken in a daily dose of 100–300 mg. until October 1960. The drug was resumed in similar dosage from November 1960 to June 1961, and again from September 1961 to April 1963.

In March 1963 she complained of fatigue and reported episodes of haemoptysis. At that time her haemoglobin was found to be 59% (serum iron 24 µg./100 ml.) and the erythrocyte sedimentation rate (E.S.R.) 90 mm./1 hour. Intramuscular iron was recommended to a total of 2 g. There was no history of her ever having had radiotherapy.

In April she complained of sore throat and developed left-sided pleuritic pain with productive cough. On admission to hospital she was febrile, and a radiograph of the chest showed a left pleural effusion with collapse of the left lower lobe. A penicillin-sensitive staphylococcus was cultured from sputum. The haemoglobin had fallen to 33%, the E.S.R. was 167 mm./1 hour, and the total leucocyte count was 32,000/c.mm. (neutrophils 6%, lymphocytes 21%, monocytes 69%, eosinophils 4%). Films of sternal marrow initially

showed a marked increase in mature monocytes, but later appearances were consistent with a diagnosis of subacute myelomonocytic leukaemia, with a reduction in erythroid elements, infiltration with atypical monocytes, and paramyeloblasts.

The patient was treated with transfusion of packed cells and intramuscular penicillin, with some initial improvement. Within a few weeks, however, the spleen and lymph nodes became palpably enlarged, and the haemoglobin fell to 40%. Later, widespread ecchymoses were noted and platelets numbered only 20,000/c.mm. Her general condition deteriorated despite further blood transfusion and antibiotic and steroid therapy, and she died three months after admission to hospital.

Post-mortem examination revealed leukaemic infiltration of bone-marrow, lymph nodes, liver, spleen, kidneys, and subcutaneous tissues. The precise nature of the leukaemic cells was not determined, but many had the appearance of monocytes, with indented, folded, or round nuclei. A diagnosis of myelomonocytic leukaemia of the Naegeli type was suggested.

It is of interest to note that this is the first recorded instance of a myelomonocytic leukaemia in association with phenylbutazone therapy. There appears to be no pattern in the type of leukaemia in the cases previously reported: four patients had myeloid leukaemia, four had lymphatic leukaemia, and one had an acute undifferentiated form of leukaemia. It is only by recording every case of this nature that a more complete picture of the association can be obtained.

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