SHORT REPORTS

Bone marrow necrosis after treatment with sulphasalazine

We describe a patient in whom extensive necrosis of the bone marrow occurred while taking sulphasalazine. Unlike most cases of extensive bone marrow necrosis he made a full recovery.

Case history

A 22 year old Jamaican man diagnosed as suffering from ulcerative proctitis was prescribed sulphasalazine 1 g thrice daily and prednisolone enemas. His blood count at the time was normal. Three weeks later he was admitted to hospital with a history of complaint of headache, sore throat, and abdominal pain; amoxycillin was prescribed. His condition continued to deteriorate and a generalised rash developed. He was admitted to hospital five days later. Examination showed facial swelling, generalised tender lymphadenopathy, an exfoliative dermatitis, and a tender, enlarged liver. Haemoglobin concentration was 12.6 g/dl, white cell count 12.6 x 10^9/l, and platelet count 224 x 10^9/l. The differential white cell count showed only 12% neutrophils and 88% lymphocytes, some of which were atypical. The patient took his own discharge but his symptoms worsened and he presented again, this time to St Thomas’s Hospital. Results of examination, in addition to the above, included fever and severe pharyngitis. Haemoglobin electrophoresis showed a normal pattern. A bone marrow aspirate contained fragments that stained abnormally, lacking cellular details and surrounded by clumps of platelets. Residual haemopoietic cells were normal morphologically but an excess of atypical lymphoid cells were present. The marrow spaces of a trephine biopsy sample consisted largely of necrotic tissue, and small areas of residual haemopoietic tissue were infiltrated by lymphocytes and plasma cells (figure).

Comment

Sulphasalazine is effective against ulcerative colitis but the incidence of side effects is reportedly as high as 20%. In the colon sulphasalazine is broken down to sulphapyridine and 5-aminosalicylic acid. Sulphapyridine is absorbed and is excreted in the urine, and appears to be responsible for many of the side effects reported. These include toxic erythema, hepatitis, Heinz body haemolytic anaemia, megaloblastic anaemia, and pancytopenia. Patients who are slow acetylators tend to have high plasma sulphapyridine concentrations and to be most at risk from sulphasalazine toxicity.

The occurrence of bone marrow necrosis in an otherwise fit young man shortly after beginning a course of sulphasalazine and in the presence of other problems associated with sulphasalazine (hepatitis and exfoliative dermatitis) make it likely that sensitivity to sulphasalazine was responsible for this problem. Bone marrow necrosis is an uncommon haematological finding but was once noted after treatment with another sulphonamide, sulphathiazole. It is also a recognised complication of sepsis, but in our patient the neutrophil count was already falling before he became febrile. In other cases of sulphasalazine-induced cytopaenia the patients lacked precursor cells of one or more of the normal haemopoietic cell lines. Infiltration of the bone marrow by lymphocytes and plasma cells has been noted.

Extensive bone marrow necrosis is usually associated with a high mortality and is often recognised only at necropsy. Recovery in our patient was fortunately complete.

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Diabetic thoracic polyradiculopathy presenting as abdominal swelling

Many workers have reported abdominal pain and paraesthesiae as manifestations of diabetic neuropathies. The coexistence of peripheral and autonomic neuropathies, and a good prognosis for recovery, we describe a patient with type 2 diabetes and thoracic polyradiculopathy who presented with an abdominal swelling but no other symptoms of peripheral or autonomic neuropathy.

Case report

A 71 year old white man with a 15 year history of type 2 (non insulin dependent) diabetes mellitus was referred for investigation of a right sided abdominal swelling. Six weeks previously he had noticed a bulge in the right side of his abdomen, which became more prominent when he coughed or tried to sit up from the supine position. There was no localised pain, though a