The control subjects had recently attended the fracture clinic and were otherwise healthy. They were matched with the patients for age (± 5 years), sex, social class, and marital status and were not significantly different from the patients in height or weight distribution. The controls were interviewed about their diet in the same manner as the patients. The statistical significance of differences was calculated by Student's *t* test or by Wilcoxon's rank sum test for paired data.

The table shows the dietary intake of the patients and controls. There was no significant difference in any food component between the two groups. In particular, there was no difference in the intake of dietary fibre or refined sugar.

Comment

There is apparently no difference between the diet before illness of patients with ulcerative colitis and that of closely matched controls. This contrasts with our findings in patients with Crohn's disease³ and suggests that, despite their similarities, these two diseases do not have an identical aetiology. Our data rule out the possibility that individuals develop ulcerative colitis because their intake of fibre is lower than the British average. Nevertheless, the average diet in this country differs in many respects from that of communities in which colitis is apparently rare. Hence, it remains possible that the average British diet favours the development of ulcerative colitis in susceptible individuals.

¹ Trowell H. Ulcerative colitis and Crohn's disease. In: Burkitt DP, Trowell HC, eds. *Refined carbohydrate foods and disease*. London: Academic Press, 1975:135-40.

² Painter NS. *Diverticular disease of the colon*. London: Heinemann, 1975.

³ Thornton JR, Emmett PM, Heaton KW. Diet and Crohn's disease: characteristics of the pre-illness diet. *Br Med J* 1979;ii:762-4.

⁴ Burke BS. The dietary history as a tool in research. *J Am Diet Assoc* 1947;23:1041-6.

⁵ McCance and Widdowson. *The composition of foods*. Paul AA, Southgate DAT, eds. London: HMSO, 1978.

(Accepted 20 November 1979)

University Department of Medicine, Bristol Royal Infirmary, Bristol BS2 8HW

J R THORNTON, MB, MRCP, research fellow

P M EMMETT, BSC, SRD, senior dietitian

K W HEATON, MD, FRCP, reader in medicine

Cimetidine and thrombocytopenia

Since the introduction of cimetidine there have been sporadic reports of associated blood dyscrasia. Uncomplicated thrombocytopenia has been recorded in only three patients,^{1,2} in whom factors other than cimetidine treatment may have been implicated. I report a case in which the relation of treatment with cimetidine to the development of thrombocytopenia is apparently clear cut and which may elucidate the mechanism by which thrombocytopenia is induced.

Case report

A 43-year-old Tanzanian Asian man with sarcoidosis manifesting as arthritis and lymphadenopathy (treated only with indomethacin) was admitted with polyuria, polydipsia, and melaena. He had developed hepatosplenomegaly and had anaemia and hypercalcaemia (plasma calcium concentration 3.2 mmol/l; 12.8 mg/100 ml). His platelet count was $184 \times 10^9/l$ ($184\,000/\mu l$). A small, lesser-curve gastric ulcer was detected radiologically and endoscopically.

Indomethacin was stopped, and he was given cimetidine 1 g daily and prednisolone 20 mg daily, with resolution of his arthritis, lymphadenopathy, and hypercalcaemia. Forty-nine days after beginning cimetidine, while taking prednisolone 10 mg daily, he was readmitted with a two-day history of sore throat and oral ulceration and bleeding. Examination disclosed haemorrhagic blisters on the tongue and buccal mucosa and petechiae in the pharynx, round the mouth, and on the lower legs. There was no lymphadenopathy, and his spleen was barely palpable. His platelet count was $6 \times 10^9/l$ ($6000/\mu l$), haemoglobin concentration 13.7 g/dl, and white cell count $6.6 \times 10^9/l$ ($6600/\mu l$; distribution 62% polymorphs, 24% lymphocytes, and 14% monocytes). Cimetidine was stopped but prednisolone 10 mg daily continued. The figure shows the subsequent rise in the platelet count. Examination of the bone marrow five days after admission detected an increased proportion of megakaryocytes, consisting chiefly of mature forms.

Tests for platelet agglutinins and incomplete complement-fixing platelet antibodies both with and without the addition of cimetidine detected no abnormalities.

After 18 months the patient remained well with no recurrence of purpura. His platelet count is now $193 \times 10^9/l$ ($193\,000/\mu l$), similar to that found on presentation (see figure).

Relationship between platelet count and cimetidine treatment.

Comment

The American Food and Drug Administration studied 26 cases of haematological abnormalities (usually granulocytopenia) in about 1.3 million patients treated with cimetidine.³ In many cases the drug was exonerated or the data were insufficient. The other cases were complicated by factors such as renal failure, septicaemia, and treatment with cytotoxic drugs. Complicating factors are also apparent in other reported cases of thrombocytopenia associated with cimetidine treatment. Two patients^{1,2} also had large-bowel cancer and a third² was an alcoholic with bleeding varices who evidently had had thrombocytopenia before taking cimetidine; after portacaval shunting he developed respiratory failure and subsequently renal and hepatic failure.

In the present case the appearance of severe thrombocytopenic purpura was temporally related to the administration of cimetidine and reversed when cimetidine was stopped without altering the dose of prednisolone. The association with sarcoidosis is particularly interesting because this is a recognised though rare cause of thrombocytopenia, which may prove fatal if not treated with steroids or by splenectomy.⁴ Sarcoidosis alone is unlikely to have caused thrombocytopenia in the present case, since the platelet count was normal when the disease was most active and fell during remission. Cimetidine probably acted as a precipitant in a disease that predisposes the patient to autoimmune platelet destruction; the negative results of the antibody tests do not exclude this mechanism.

A recent report of autoimmune haemolytic anaemia during cimetidine treatment⁵ is relevant because this may also be associated with sarcoidosis. Increased peripheral destruction of blood cells sensitised by cimetidine (including leucocytes in some reported cases of neutropenia⁵) rather than bone-marrow toxicity may explain some of the haematological disturbances, particularly in predisposed patients. In view of the widespread use of cimetidine, the fact that there have been few reported cases of blood dyscrasia (none of them fatal) in uncomplicated peptic ulcer is reassuring.

¹ McDaniel JL, Stein JJ. Thrombocytopenia with cimetidine therapy. *N Engl J Med* 1979;300:864.

² Idvall J. Cimetidine-associated thrombocytopenia. *Lancet* 1979;ii:159.

³ Freston JW. Cimetidine and granulocytopenia. *Ann Int Med* 1979;90:264-5.

⁴ Dickerman JD, Holbrook PR, Zinkham WH. Etiology and therapy of thrombocytopenia associated with sarcoidosis. *J Pediatr* 1972;81:758-64.

⁵ Rotoli B, Formisano S, Alfinito F. Autoimmune haemolytic anaemia associated with cimetidine. *Lancet* 1979;ii:583.

(Accepted)

Department of Medicine, Westminster Hospital, London SW1P 2AP
A J ISAACS, BM, MRCP, senior registrar