

patient took periodically. The presentation and clinical aspect in the form of an acute intravascular haemolytic episode, the small doses of drug sufficient to cause the attacks, the brief time lapse between administration and onset of symptoms, and the positive result of direct Coombs test, with notable components on the erythrocyte surface at the time of the attacks, all indicate that the mechanism responsible is of stibophen or "innocent bystander" type.²⁻⁵

Nalidixic acid should therefore be added to the list of drugs responsible for immune haemolytic anaemia.

¹ Mandal BK, Stevenson J. Haemolytic crisis produced by nalidixic acid. *Lancet* 1970;i:614.

² Garratty G, Petz LD. Drug-induced immune hemolytic anemia. *Am J Med* 1975;58:398.

³ Vila JM, Blum L, Dosik H. Thiazide-induced immune hemolytic anemia. *JAMA* 1976;236:1723.

⁴ Wintrobe MM. *Clinical hematology*. Philadelphia: Lea and Febiger, 1981: 943-7.

⁵ Worledge SM. Immune drug-induced hemolytic anemia. *Semin Hematol* 1973;10:327.

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Campylobacter colitis associated with erythema nodosum

When erythema nodosum and mouth ulcers occur in a patient presenting with bloody diarrhoea in whom there is sigmoidoscopic and histological evidence of "colitis" the colitis is usually due to either Crohn's disease or ulcerative colitis. We describe a patient in whom these cutaneous manifestations paralleled the course of campylobacter colitis. Erythema nodosum has not been described previously in association with campylobacter infection. This association may have implications for the pathogenesis of inflammatory bowel disease, infective colitis, and transient colitis syndrome.¹

Case report

A 24-year-old woman gave a week's history of frequent watery, bloody diarrhoea associated with colicky lower abdominal pain, which had started six days after she had arrived in Spain. She had also developed tender raised areas on both shins, which she ascribed to insect bites. Ovrnette, an oral contraceptive containing ethinylloestradiol and levonorgestrel, was the only medication.

Examination showed a well woman with classical erythema nodosum on both shins. A 0.5 cm shallow ulcer was present on her lower lip, but there was no eye or genital disease. Direct and rebound tenderness were present in the left iliac fossa. Sigmoidoscopy showed abnormal rectal mucosa with diminished vascularity and contact bleeding. Histology of a rectal biopsy specimen gave appearances of an infective colitis. *Campylobacter jejuni* was cultured from stool samples, which were negative for *Salmonella*, *Shigella*, and *Yersinia* spp and enteropathogenic *Escherichia coli*. *Clostridium difficile* and its toxin were not detected. Virus particles were not detected by direct electron microscopy or culture. A full blood count was normal. A Monospot slide test was negative; yersinia antibodies were absent; and titres of anti-streptolysin O, antideoxyribonucleotidase B, antihyaluronidase, and antibodies to cytomegalovirus and *Chlamydia psittaci* showed no abnormality. A Mantoux test (100 old tuberculin units) was negative. A chest radiograph was normal. Throat swab and blood culture were sterile.

Both the colitis and the cutaneous lesions resolved spontaneously, and she continued taking Ovrnette. The erythema nodosum did not reappear, and she remained well three months later.

Comment

Campylobacter infections have been associated with colitis, and several extraintestinal manifestations including septic and reactive arthritis, cholecystitis, and endocarditis are well recognised. Cutaneous manifestations have not, to our knowledge, been described. A causal relation between the appearance of erythema nodosum, mouth ulcer,

and colitis appears to have existed in this patient, and the lesions progressed as the colitis settled. Continuing challenge with Ovrnette was not associated with recrudescence, which eliminates this potential cause.

Mouth ulceration and erythema nodosum are both well-recognised cutaneous associations with inflammatory bowel disease. Infective bowel disease has previously been reported only in association with yersinia infections. There was no supportive clinical or pathological evidence for inflammatory bowel disease in our patient. If stool samples had not been sent for microbiological analysis or had been negative for campylobacter (due to previous antibiotic treatment, for example) inflammatory bowel disease such as ulcerative colitis would probably have been diagnosed. She would probably then have received quite inappropriate treatment and become subject to the implications of long-term follow-up.

It has been suggested that there is a form of colitis, possibly of infective aetiology, transient in nature, that may be mistaken for inflammatory bowel disease and that accounted for almost 20% of one series of patients with acute colitis.¹ The occurrence of mouth ulcer and erythema nodosum in this patient with campylobacter colitis raises the possibility that a common pathological or immunological mechanism may function in some cases of inflammatory disease and infective colitis.

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¹ Mandal BK, Schofield PF, Morson BC. A clinico-pathological study of acute colitis: the dilemma of transient colitis syndrome. *Scand J Gastroenterol* (in press).

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Orthogeriatric rehabilitation ward in Nottingham: a preliminary report

Orthogeriatric wards have been advocated for many years,^{1,2} and the concept was supported in the Duthie report.³ In Nottingham there have been problems with coping with the numbers of orthopaedic patients, and at the peak time of the year in February 1977, 70 orthopaedic patients were "sleeping out" in other departments. The main source of difficulty was the large number of aged patients with trauma, mainly fractured neck of femur. In Nottingham the geriatric service has lacked resources (six beds/1000 patients over 65 years compared with the Department of Health and Social Security norm of 10 beds/1000 patients). In October 1978 an 18-bed orthogeriatric rehabilitation ward was opened in a hospital three miles away from the acute hospital. This orthogeriatric ward was a collaborative project between the orthopaedic and geriatric departments with combined ward rounds and a close working relationship. It was also an attempt to put the available resources of both departments to the most effective use.

We have made a preliminary evaluation of the success of the project by comparing the length of stay for all female patients admitted to the Nottingham hospitals with fractured femur in 1977 (the last complete year before the ward opened) with that in 1979 (the first complete year after the ward opened).

Patients, methods, and results

Female patients were selected for transfer to the rehabilitation ward 48 hours after operation or as soon as a bed became available. Basically fit patients who were expected to do well without special measures were not sent, nor were those with gross physical or mental defects which would prevent mobilisation. Patients who were expected to respond to a well-staffed rehabilitation team were selected for the ward; a "triage" system thus operated. Most patients had a fractured neck of femur complicated by other disease or disability, but elderly patients with trauma and any major rehabilitation problem also qualified for the ward.