LETTERS TO THE EDITOR

Peripheral arthropathies in inflammatory bowel disease

EDITOR,—We read with interest the paper by Orchard *et al* (*Gut* 1998;**42**:387–91) describing peripheral arthropathy in inflammatory bowel disease (IBD). However their study concentrated upon those patients with joint swelling or effusion, classifying them as either pauciarticular (type 1) or polyarticular (type 2). We were interested to note the low prevalence of arthralgia in their patients (14.3% for Crohn's disease), and that these patients were disregarded from further study. This report is in the context of a wide variation in the published prevalence of peripheral arthropathy in Crohn's disease (0.4 to 23%).[1]

In our own retrospective study of 102 patients with Crohn's disease we found a higher prevalence of joint symptoms (53%). Ankylosing spondylitis was present in 4% of patients, 9% had peripheral arthritis, and 24% had peripheral arthralgia without joint swelling or effusion. The remainder of patients had degenerative joint disease or seropositive arthritis. Figure 1 shows the joint distribution of the peripheral arthropathies. This demonstrates a prediliction for arthritis to affect the wrist and joints of the hands when compared with patients with arthralgia, significantly so in the wrists ($p<0.05$). Both the patients with peripheral arthralgia and peripheral arthritis had a significantly greater prevalence of mucocutaneous manifestations of IBD (i.e. oral ulceration, erythema nodosum, pyoderma gangrenosum, and uveitis) when compared with patients without joint symptoms ($p<0.01$ and $p<0.05$, respectively). This pattern is similar in some respects to that of the type 1 peripheral arthropathy described by Orchard *et al*. We also noted that patients with peripheral arthropathy were less likely to have perianal disease than those without peripheral arthropathy ($p<0.05$), although there was no difference in fistulating disease.

In contrast to Orchard *et al*, we found no association between peripheral arthralgia and colonic disease or the requirement for surgery. Non-steroidal anti-inflammatory drugs (NSAIDs) had been used in 66% of our patients, and had been implicated as triggering an exacerbation of IBD in five patients. Overall 46% of patients with Crohn's disease who used NSAIDs had to cease therapy because of gastrointestinal side effects.

In conclusion, we feel that peripheral arthralgia without joint swelling or effusion, similar to type 1 (pauciarticular) arthropathy, accounts for the majority of locomotor morbidity experienced by patients with Crohn's disease. The prevalence of Crohn's disease arthropathy has probably been underestimated, as these patients have not been included in previous studies.

E H FORREST
R I RUSSELL
Department of Gastroenterology, Royal Infirmary, Glasgow G31 2ER, UK

1 Gran TG, Husby G. Joint manifestations in gastrointestinal diseases. *Dig Dis* 1992;**10**:274–94.

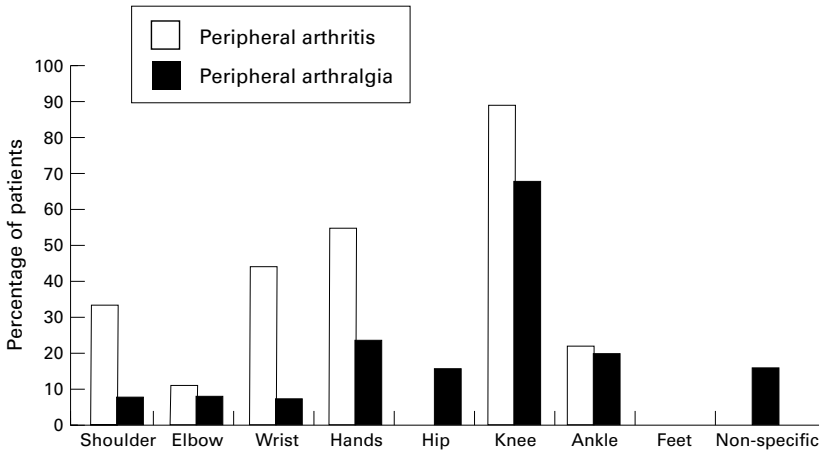

Figure 1 Distribution of peripheral arthropathy in Crohn's disease.

Reply

EDITOR,—We were interested to read in more detail the results of the study by Forrest and Russell which had previously been presented in abstract form. It is widely accepted that there is a high prevalence of arthralgia in patients with Crohn's disease and this was highlighted by a previous abstract from the St Mark's group.[1] Although there are little comparative data on arthralgia in patients with Crohn's disease compared with controls, Stein *et al* examined this question in 54 patients and healthy controls.[2] Of the patients, 44% complained of arthralgia compared with 46% of controls whereas 7.4% of the former had evidence of arthritis on clinical examination. Arthralgia is therefore common in patients with Crohn's disease and also in the general population. Retrospective studies of arthralgia are also extremely difficult to interpret. The nature of the background population (which is not clear from Forrest and Russell) and selection of study patients are of importance. It is not clear from this study how they differentiated arthritis from arthralgia retrospectively and exactly what constituted arthralgia or, indeed, arthritis. Thus 10% of patients with arthralgia in Forrest and Russell's study had "non-specific" joint involvement. Many retrospective studies, and certainly the large one by Greenstein *et al*,[3] have included patients with arthralgia and so are likely to overestimate the prevalence of arthropathy in Crohn's disease rather than underestimate it as asserted by Forrest and Russell.

In assessing this problem for our study we deliberately restricted analysis to those patients with objective evidence of arthritis, recognising that this will give an underestimate of prevalence, in order to explore pathogenic mechanisms. Clearly, precise clinical characterisation is essential for this and our preliminary data on HLA associations[4] have already justified this approach.

In conclusion, a large number of patients with Crohn's disease do complain of arthralgia, but this may not be any greater than the general population. Studies that include these patients are difficult to interpret and may obscure important clinical and pathogenic associations.

T R ORCHARD
D P JEWELL
Gastroenterology Unit, University of Oxford, Radcliffe Infirmary, Woodstock Road, Oxford OX2 6HE, UK

1 Yahia B, Dave U, Keat A, *et al*. Arthropathy in inflammatory bowel disease (IBD): An underestimated problem [abstract]? *Gastroenterology* 1996;**110**:A1048.
2 Stein H, Volpin G, Shapira D, *et al*. Musculoskeletal manifestations of Crohn's disease. *Bull Hosp Joint Dis* 1993;**53**:17–20.
3 Greenstein A, Janowitz H, Sachar D. Extra-intestinal complications of Crohn's disease and ulcerative colitis. *Medicine* 1976;**55**:401–12.
4 Orchard T, Thiyagaraja S, Welsh K, *et al*. HLA genes are important phenotype determining genes in the peripheral arthropathies of inflammatory disease (IBD) [abstract]. *Gastroenterology* 1998;**114**:A1057.

HFE and alcoholic liver disease

EDITOR,—We read with interest the recent paper by Grove *et al* (*Gut* 1998;**43**:262–6) which concludes that the two haemochromatosis mutations (C282Y and H63D) influence neither the liver iron content nor risk of fibrosis in alcoholic liver disease. Two factors in this study may have led to an underestimation of the contribution of the haemochromatosis gene (*HFE*) to hepatic iron loading.

Most of the patients in the study had established cirrhosis. Cirrhosis, particularly alcoholic cirrhosis, may itself be a potent cause of hepatic iron loading once it has developed.[1] This rapid iron loading may result in hepatic iron concentrations usually associated with the homozygous haemochromatosis state and might obscure the effect of any iron loading that might occur due to the heterozygous genotype. Also, in haemochromatosis, excess alcohol consumption, although not affecting the hepatic iron concentration, seems to cause iron to redistribute from hepatocytes to reticuloendothelial cells.[2] The same may be true of hepatic iron stores in heterozygous haemochromatosis when excess alcohol is consumed, thus causing an underestimation of the hepatic iron stores if only hepatocellular iron is scored histologically and hepatic iron concentration (HIC) is not measured biochemically. In their study, Grove *et al* noted the presence of perisinusoidal and portal tract iron but did not estimate the degree of this staining and did not measure HIC.

These two factors may have led to the finding that significant (grade 2 or more) hepatocyte iron staining was not significantly com-