Management of Crohn's disease: Time for audit?

“Medical treatment is purely palliative and supportive,” wrote Crohn almost 50 years ago, discussing the management of the disease that bears his name. At that time he believed that surgery was the treatment of choice for regional ileitis, but a sceptic might think his words not so wide of the mark in 1980. The introduction of steroid treatment during the 1950s promised easy control of the disease. Nevertheless, subsequently retrospective studies showed that steroid drugs often gave only short-term benefits and might even be harmful. Controlled prospective trials then became the order of the day. Sadly, after more than 10 years' work and a mountain of contradictory data on steroids, sulphasalazine, and immunosuppressive agents we are still unable to recommend any particular regimen.

Scientific decision making is particularly difficult in Crohn's disease because of the multiplicity of sites affected and the protean clinical manifestations. Investigations of even large series of patients tend to finish up as analyses of many small subgroups. Clinical decision making may be made easier by using the patient as his own control, and hence regular follow-up is important because it helps the doctor to get to know his patient, besides performing clinical and laboratory assessments. Regular observation may create its own problems, such as the patient with few symptoms but laboratory evidence of inflammation. Should the doctor then treat the patient or the abnormal blood test results? In Britain most physicians use the minimum treatment to keep the patient comfortable and at work. Korelitz has recently criticised this policy of passive observation, however, advocating early suppression of indicators of disease activity. There is no evidence from controlled studies to support either view.

In the United States a national study was set up to determine which therapeutic agents would suppress the acute disease and maintain remission over two 17-week periods. Not only have the design and interpretation of the trial been criticised but the response was monitored by a disease activity index which was so complicated that it was best derived by a programmable calculator. Active disease was most effectively suppressed by steroids, but sulphasalazine was also better than placebo; a combination of the two drugs conferred no added advantage. Azathioprine was ineffective. No drug was better than placebo in maintaining remission and all three regimens produced side effects.

Except in some centres, the use of azathioprine has never been wholeheartedly endorsed because of the fear of side effects; for instance, Willoughby recommended that treatment should be limited to a one-year course to prevent the possible development of malignancy. Such restrictions cause further problems, because most patients become drug dependent and relapse on withdrawal. A report of a recent double-blind cross-over trial has renewed interest in immuno-suppressive treatment in the United States. Treatment with 6-mercaptopurine reduced the need for steroids, closed fistulae, and ameliorated signs and symptoms. The response was often slow and might be delayed for up to four months after onset of treatment. Side effects occurred in 10% of patients but were reversible. The dosage had to be monitored by the haematology laboratory in much the same way as anticoagulant treatment—a requirement that should at least discourage indiscriminate use of the drug.

In the light of these recent studies and reviews, how should the busy clinician attempt to manage his outpatients with Crohn's disease? Probably the best approach is to measure a simple index of disease activity and use the least harmful regimen that will control symptoms. Drugs to suppress diarrhoea and relieve bowel spasm and pain may be used with caution. A diet containing unrefined carbohydrate with extra fibre as raw fruit and vegetables may prevent relapse without inducing intestinal obstruction; the role of added bran has not been determined. Anaemia and other nutritional deficits should be corrected. Though the documented evidence is sparse, sulphasalazine seems worth prescribing for both acute symptoms and proctitis. Steroids should be given if the symptoms do not come under control, and if the patient needs hospital admission corticosteroids may be the drug of choice. An attempt should be made to wean the patient off steroids after a few months, but many become drug dependent and will relapse. Further attempts at slow reduction of steroid dosage should be made thereafter. Surgery should be considered and reconsidered at all stages of the disease, but we have no satisfactory data to tell us when and how to operate.
The dangers of thinness

The average weight of the inhabitants of Framingham, Massachusetts, aged 30-59 years is rather greater than the Metropolitan Life Insurance Company’s “ideal weight” for height.1 The same is true of other large population samples in the United States5 and in Britain.3 Since the insurance companies’ ideal weight is the weight associated with minimum mortality, we might expect that moderately overweight average men and women would have a higher death rate than relatively slim people of “ideal weight,” but a recent publication from Framingham says that this is not so.4

The insurance companies based their ideal weight for height on the death rates in a large series of people issued with policies from 1935 to 19533; their clients were weighed and measured clothed and wearing shoes. In comparisons with series in which the subjects were weighed partially clothed and measured without shoes, height has to be adjusted by 2.5 cm for men and 5.1 cm for women, and weight by 3 kg for men and 2 kg for women. When these corrections are made the desirable range of weights is conveniently expressed as the ratio W/H², where W is weight in kg and H is height in m; the desirable range for men is 20-25 and for women 19-24.9

The new analysis from the Framingham study4 concerns men and women aged 40-69 years, observed over six-year periods. The grouping of weight and height is that used in the build and blood pressure study of the “insurance” series; there is no lower limit to the weights included, but there is an upper limit of 116 kg. The body-build groups (converted into W/H² notation) are: less than 21, 21-26, 26-29, 29-32, and over 32. Since the Framingham study has now been running for 24 years the total cohort of 5209 men and women could be reclassified by age and weight three times, to provide four consecutive six-year follow-up periods. During this period 717 men and 578 women died.

When observed is compared with expected mortality in each group, the small number in the thinnest group (about 3% of men and 6% of women) are seen to have fared worse than average. This could be partly, but not completely, explained by the excess of smokers in the thinnest group. The cause of the excess mortality among thin people is not clear. In the American Cancer Society study6 of about 750 000 men and women, there was an increase in mortality at W/H² values below 21 for men and less than 18 for women; in both sexes this was attributable to an increased death rate from digestive diseases and cerebrovascular disease, and in men from cancer. In the Framingham series in men the excess risk for those more than 20% below average weight is similar to the risk for those who were 20-29% above average weight; but to be 30-39% above average weight carries double the risk, and over 40% above average treble the risk. Women have a less increasing in death rate associated with underweight, but deviations above average weight carry an excess risk similar to that seen in men.

What, then, is ideal weight? Long-term studies in men1 and women4 show that thinner people live longer. In these studies, however, weight is defined by weight at entry, whereas in the recent Framingham analysis4 weight was redefined every six years. People change in weight with time, though the average weight of groups of people remains remarkably constant.9 In the first 18 years of the Framingham study the difference between maximum and minimum weight for the average man or woman was 10 kg,1 which is enough to cross an entire body-build group. The message seems to be that if you are in the W/H² group 20-25 and are planning to leave it you will probably be slightly safer crossing the upper boundary than the lower one.

7 The National Cooperative Crohn's Disease Study. Gastroenterology 1979;77:825-94.
8 Best WR, Becket JM, Singleton JW. Redivere values of the eight coefficients of the Crohn's disease activity index (CDAI). Gastroenterology 1979;77:943-6.