

disorder¹, this study was undertaken to illustrate the influence of psychotherapy in the amelioration of IBS symptoms. Sixty consecutive patients seen in private practice between January 1976 and December 1977 were treated by psychotherapy. Organic disease was excluded by appropriate investigation. Three patients rejected the concept of an emotional basis for their symptoms and were excluded from the study; three patients were lost to follow-up.

A self assessment questionnaire was sent to 54 subjects, two of whom failed to respond; the results of psychotherapy were assessed in the remaining 52 patients. Because of the chronic nature of their symptomatology the patients were used as their own controls. The 52 patients comprised 31 females aged 16-68 years (mean 39 years) and 21 males aged 14-60 years (mean 37 years). The duration of symptoms ranged from four months to 20 years (mean 5.5 years). Mean follow-up period since the last attendance was 20 months (range 8-33 months). A brief but active form of dynamic psychotherapy was adopted for all patients. Mean time spent in treatment was 2.2 hours and no patient received medication. Response to psychotherapy was graded from nil to 4+ (asymptomatic).

Results of the questionnaire indicated a substantial (3+ to 4+) improvement in 46% of patients. Relief of individual abdominal symptoms to a similar degree was as follows: pain (42% of patients); diarrhoea (69%); vomiting (57%); constipation (45%) and nausea (58% of patients). The symptoms most resistant to treatment were pain and constipation where 24% and 35% of the subjects reported little or no change respectively.

The efficacy of a very brief but active form of psychotherapy in the treatment of IBS is supported. Results provide further evidence for a direct relationship between the psychological and somatic components of the disorder.

Reference

1. HISLOP, I. G. (1971); *Gut* 12, 452.

DETECTION OF COLO-RECTAL TUMOURS BY HEMOCCULT: INFLUENCE OF PATTERNS OF BLEEDING AND SLIDE SENSITIVITY

F. A. MACRAE and D. J. B. ST. JOHN

Department of Gastroenterology, The Royal Melbourne Hospital

Colo-rectal cancer is often advanced when symptoms first develop. "Hemoccult II", a guaiac slide test for faecal occult blood, has been introduced for detection of asymptomatic colo-rectal cancers and adenomas. However, prediction of false-negative rates is difficult without information on patterns of bleeding from either asymptomatic or symptomatic lesions.

Gastrointestinal blood loss was measured by the radiochromium method for an average of 8.5 days in 49 patients, 31 with colo-rectal cancer (including 18 Dukes' A or B) and 18 with adenoma. Patients adhered to an occult blood diet and prepared Hemoccult slides in duplicate for development with and without rehydration.

Mean blood loss from eight right-sided cancers ranged from 2.5 to 28 ml/day, with most between 12 and 18 ml/day. All but one of 23 left-sided cancers had a mean loss below 6.5 ml/day. Expressed as concentration, significant blood loss (> 2 mg Hb/gm stool) occurred in each of 40 consecutive three-day periods from the right-sided cancers whereas bleeding was below this level during 42 of 137 cycles from left-

sided cancers. Dukes' A and B cancers bled as much as more advanced lesions. Rehydration of Hemoccult slides increased their sensitivity at all levels of blood loss, doubling it at low levels. Hemoccult positivity was defined as one or more positive tests in any random consecutive three-day period. The false-negative rate for cancer was 30% without rehydration and 8% with rehydration. These rates were not altered if patients with overt bleeding were excluded. Most small adenomas did not bleed and were not detected by Hemoccult. In those > 2 cm, 75% of cycles were Hemoccult positive.

These patterns of blood loss indicate that unrehydrated Hemoccult slides will miss at least 30% of colo-rectal cancers. Detection of adenomas may be regarded as a bonus in screening programmes. Studies are in progress to evaluate the false-positive rates of rehydrated Hemoccult slides.

NUTRITION AND THE GASTROENTEROLOGIST

M. L. WAHLQVIST

Department of Human Nutrition, Deakin University, Geelong, Victoria

Gastroenterologists have, inevitably, been more conscious of food and nutrition than most sub-specialists. It is therefore appropriate that they should express interest in new developments in human nutrition. Clinical nutrition embraces at least four areas: (1) Nutritional Assessment; (2) Nutritional Support; (3) Nutritionally-related Disorders; and (4) Nutrition Education.

Most of the nutritionally-related disorders in industrialised society are those of over-nutrition (obesity, atherosclerotic vascular disease, dental caries, certain neoplasms), but the gastroenterologist sees under-nutrition as far as "low dietary fibre intake", alcohol abuse, surgical complications, malabsorption and neoplastic disease are concerned and in special groups such as the elderly.

We have recently established a relationship between dietary fibre intake and bowel habits in pre-school children in the Latrobe Valley of Victoria. Alcohol abusers appear to be at risk from ascorbic acid and zinc as well as thiamin and folic acid deficiencies. Low serum albumins, found in institutionalised elderly, respond in part to zinc supplementation. Examples like these illustrate the application of new methodologies and horizons in clinical nutrition which may become relevant for gastroenterologists.

As the nutritional correlates of disorders of affluent society becomes clearer, a national nutritional policy can be formulated. Recommendations for dietary guidelines have now been made by an Australian Working Party, and include a reduction in energy intake, a reduction in alcohol intake, an increase in water intake, a reduction in fat intake and increases in wholegrain cereal, fruit and vegetable consumption.

THE INFLUENCE OF SYSTEMIC ACID-BASE IMBALANCE ON THE DEVELOPMENT OF GASTRIC EROSIONS IN THE RESTRAINED RAT

P. E. O'BRIEN and M. BUSHELL

Department of Surgery, Flinders Medical Centre, Bedford Park, S.A.

Recent studies of isolated sheets of amphibian gastric mucosa have indicated that HCO₃⁻ concentration bathing the mucosa