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### EDITOR *British Medical Journal*

The object of *Gut* is to publish original papers and reviews concerned with practice and research in the field of gastroenterology. The field is that of alimentary, hepatic, or pancreatic disease, and papers may cover the medical, surgical, radiological, or historical aspects. They may also deal with the basic sciences concerned with the alimentary tract, including experimental work. The report of a single case will be accepted only if it is of sufficient interest in relation to a wider field of research.

There will be a section devoted to short papers on laboratory and surgical techniques and methods of investigation where these are not part of a lesser survey.

**COMMUNICATIONS** Papers should be addressed to the Editor, *Gut*, B.M.A. House, Tavistock Square, London, W.C.1. Papers are accepted only on the understanding that they are not published elsewhere without previous sanction of the Editorial Board. They should be in double-spaced typewriting on one side of the paper only. On the paper the name of the author should appear with initials (or distinguishing Christian name) only, and the name and address of the hospital or laboratory where the work was performed. A definition of the position held by each of the authors in the hospital or laboratory should be stated in a covering letter to the Editor. Communications should be kept short, and illustrations should be included when necessary; coloured illustrations are allowed only if monochrome will not satisfactorily demonstrate the condition. It is not desirable that results should be shown both as tables and graphs.

**ILLUSTRATIONS** Diagrams should be drawn in indian ink on white paper, Bristol board, or blue-squared paper. The legends for illustrations should be typed on a separate sheet and numbered to conform with the relevant illustrations. Photographs and photomicrographs should be on glossy paper, unmounted. TABLES should not be included in the body of the text, but should be typed on a separate sheet.

**ABBREVIATIONS** In general, symbols and abbreviations should be those used by British Chemical and Physiological Abstracts. In any paper concerning electrolyte metabolism, it is desirable that data be calculated as m-equiv/l. as well as (or alternatively to) mg/100 ml.

**REFERENCES** These should be made by inserting the name of the author followed by year of publication in brackets. At the end of the paper, references should be arranged in alphabetical order of authors' names. Such references should give author's name, followed by initials and year of publication in brackets, *the title of the article quoted*, the name of the journal in which the article appeared, the volume number in arabic numerals, followed by the numbers of first and last pages of the article. Abbreviations are according to *World Medical Periodicals* (published by B.M.A. for World Medical Association), thus: Chandler, G. N., Cameron, A. D., Nunn, A. H., and Street, D. F. (1960). Early investigations of haematemesis. *Gut*, 1, 6-13.

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ADDENDUM

Since writing this report a further case has been published (Tyers, Steiger, and Dudrick, 1969) of

carcinoma developing in a defunctioned loop of jejunum in a man of 32 who had had symptoms of regional enteritis for 12 years.

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## The October 1969 Issue

### THE OCTOBER 1969 ISSUE CONTAINS THE FOLLOWING PAPERS

Measurement of blood and iron loss in colitis with a whole-body counter B. H. R. STACK, T. SMITH, J. HYWELL JONES, and J. FLETCHER

Gastric acid secretion in patients with duodenal ulcer treated for one year with anticholinergic drugs MICHAEL D. KAYE, PETER BECK, JOHN RHODES, and PETER M. SWEETNAM

Gastric secretion after massive small bowel resection COLIN W. O. WINDSOR, J. FEJFAR, and D. A. K. WOODWARD

Use of an inert marker (phenol red) to improve accuracy in gastric secretion studies M. HOBBSLEY and W. SILEN

Secretory response to secretin in a patient with diarrhoea and the Zollinger-Ellison pattern of gastric secretion H. PETERSEN, J. MYREN, and I. LIAVAG

The Zollinger-Ellison syndrome in a child H. B. C. BURMESTER, R. HALL, and N. MUNAWER

The paneth cell in disease KLAUS LEWIN

Studies on the intestinal flora B. S. DRASAR and MARGOT SHINER

Part II Bacterial flora of the small intestine in patients with gastrointestinal disorders

Significance of early and late positive responses to insulin hypoglycaemia in patients with intact vagi G. P. BURNS, F. C. Y. CHENG, A. G. COX, R. A. PAYNE, J. SPENCER, and R. B. WELBOURN

Insulin response to carbohydrate ingestion after gastric surgery with special reference to hypoglycaemia A. J. CAMERON, J. P. ELLIS, J. I. MCGILL, and L. P. LE QUESNE

Severe peptic oesophagitis P. L. BRUNNEN, A. M. KARMODY, and C. D. NEEDHAM

The high incidence of intestinal volvulus in Iran FARROKH SAIDI

A new method for studying gut transit times using radioopaque markers J. M. HINTON, J. E. LENNARD-JONES, and A. C. YOUNG

Oesophageal manometric studies in patients with chronic Chagas disease and megacolon PETER HEITMANN and JULIO ESPINOZA

Effect of pH changes on the cardiac sphincter G. R. GILES, C. HUMPHRIES, M. C. MASON, and C. G. CLARK

#### *Progress Reports*

The importance of keeping bile salts in their place K. W. HEATON

The implications of bile in the stomach G. J. COLE

#### *Comment*

#### *Notes and activities*

## Comment

### LIMITS OF NORMALITY OF THE DUODENAL MUCOSA

The aim of a symposium on duodenal biopsy held in Genoa on 28 June was to delimit the diagnostic significance of the histological criteria of the duodenal mucosa with particular emphasis on the limits of normality. Under the chairmanship of Professor R. Cheli (Genoa), papers were read by H. Koch (Erlangen), Z. Maratka (Prague), V. Percic (Subotica), and M. Shiner (London).

Recent methods of obtaining small intestinal mucosal samples have led to findings which are conflicting with those of earlier investigators. This applies also to the interpretation of duodenal biopsies where it is difficult to define the limits of normality. In the older literature the normal duodenal villi were well defined and usually regular, though shorter than those of the jejunum, the crypts of Galeazzi-Lieberkuhn were short and straight, and the Brunner glands appeared sometimes above but usually below the muscularis mucosae. The presence of a few infiltrating cells was documented.

Biopsy experience of the normal duodenal mucosa has shown that there is great variability. One encounters villi of different height, branched, fused forms, or shapes with flattening of their tips.

This histological picture has been better understood by the use of the stereo-microscope which allows a more global look at the mucosal surface. With this method the variability of the duodenal mucosa is easily confirmed since normally one encounters fingers, leaves, tongues, and even ridges. This physiological variability may be due, in part, to the contraction of the underlying muscle fibres and in particular of the muscularis mucosae. It is further determined by the aspiration technique and by fixation and orientation of the specimens.

Histological examination of normal villi has shown that the height of the villi varies from 114 to 700 microns, their width from 50 to 175 microns. By contrast any variation in the morphology of the villous epithelium appeared of primary importance. A decrease in cell height below 30 microns and a lack of differentiation and staining indicated an abnormality. The width of the mucosa below the base of the villi was variable and measured 50 to 350 microns. The presence of Brunner glands above the muscularis mucosae is accepted as normal. Little is known about any abnormality of either crypts of Lieberkuhn or glands of Brunner. The most debatable question centred around the extent of inflammatory cell infiltration in the stroma of villous and subvillous areas. In contrast to normal gastric mucosa the duodenal mucosa always contained cells of chronic inflammatory type and—here again—this finding itself did not signify duodenitis. Normally these cells loosely packed the connective tissue of the mucosa. Any excess, and particularly any infiltration, of cells, into and beyond the muscularis mucosa was considered significant. Local accumulation of inflammatory cells, unless associated with other pathological features of the mucosa, such as alterations of villous epithelium, hypertrophy and fragmentation of muscularis mucosae and hyperplasia of reticular fibres of the connective tissue, may probably be disregarded.

## Notes and activities

### OF INTEREST TO READERS OF *Gut*

*Gastro-intestinal X-Ray Diagnosis: A Descriptive Atlas* By D. H. Cummack. This atlas is intended for all radiologists, for physicians and surgeons particularly interested in the gastrointestinal tract, and for post-graduate students. It is the product of the author's personal experience in the radiology of the gastrointestinal tract which he has acquired at the Western General Hospital, Edinburgh, during the past 22 years. Personal techniques are described for all examinations; the atlas is profusely illustrated, demonstrating the many variations with their diagnostic pitfalls which may be found in the radiology of alimentary, biliary, and pancreatic disorders. It is an invaluable mine of information of real interest to clinicians. (Published by E. & S. Livingstone Ltd, Edinburgh and London.) Price £8 10s. 0d.

*Acta Gastroenterologica Latino Americana* We welcome the publication of this new gastroenterological journal, edited by M. Royer and published in the Argentine.

The first number contains the following articles:—

'El hígado en el embarazo normal' by C. Muñoz Monteavaro, J. J. Crottogini, M. Wasserstein, M. I. Canavesi, H. Rey, L. Peri, M. Pavlotzky, and N. J. Reissenweber.

'Metabolism of <sup>14</sup>C-bilirubin in acute cholestasis' by E. A. Rodríguez Garay, M. del R. Spetale, G. Sivori, and B. Noir.

'Electromiograma gastrointestinal; 'efectos de vagotomía metoclopramida y neostigmina' by J. J. Naveiro, A. Linares, and C. J. L. Morel.

'Celiac disease: its diagnosis, evolution, and prognosis' by H. Toccalino and J. C. O'Donnell.

'Bilio-digestive fistulae in the rat after common bile duct resection' by R. A. Mattoni, A. Sferco, E. Machado, and M. Royer.

Editorial: 'Zona antro-pilórica gástrica' by P. A. Mazure.

### EPPINGER PRIZE

Dr Falk Ltd., a pharmaceutical house in Freiburg i. Br., Germany, is establishing an Eppinger prize to be awarded for research in liver disease. The prize is to honour and encourage scientists not older than 45 years. The award (\$5,000) will be given every three years. The first award will be presented at the Freiburg International Symposium on 'Alcohol and Liver' on 2 October 1970.

The members of the award committee are: M. Coppo (Monena); W. Creutzfeldt (Göttingen); R. Fauvert (Paris); K. J. Isselbacher (Boston); H. A. Kühn (Giessen); C. M. Leevy (Jersey City); H. Popper (New York); R. Schmid (San Francisco); S. Sherlock (London).