## **Editorial Committee**

F. AVERY JONES (Editor)
NORMAN C. TANNER (Assistant Editor)
SHEILA SHERLOCK (Assistant Editor)

C. C. BOOTH
WILFRID CARD
RICHARD DOLL
R. A. GREGORY
HENRY T. HOWAT
THOMAS HUNT

ANDREW W. KAY

F. H. KEMP

J. E. LENNARD-JONES

B. C. MORSON

A. E. A. READ

E. N. ROWLANDS

GEOFFREY WATKINSON

R. B. WELBOURN

L. J. WITTS

A. W. WOODRUFF

### 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.

REPRINTS Fifty reprints will be supplied free of charge. Further reprints will be available on payment of the necessary costs; an indication of the number of reprints required should be sent to the Publishing Manager on the form provided with the proofs.

NOTICE TO ADVERTISERS Application for advertisement space and for rates should be addressed to the Advertisement Manager, *GUT*, B.M.A. House, Tavistock Square, London, W.C.1.

NOTICE TO SUBSCRIBERS GUT is published monthly. The annual subscription rate is £8 8s. in the United Kingdom and the Republic of Ireland, and £9 5s. [\$22.00 U.S.A.] in all countries overseas. (Subscriptions at the 1968 bimonthly rates, extending into 1969, will pay for six issues only. Subscribers will be informed when their current subscriptions expire.) Payment for overseas subscriptions should be made in sterling, i.e., £9 5s., and sent by Mail Transfer-Charges Remitter-through a Bank to the British Medical Association. Orders can also be placed locally with any leading subscription agent or bookseller. (For the convenience of readers in the U.S.A. subscription orders, with or without payment, can also be sent to: BRITISH MEDICAL JOURNAL, 80 Brighton Avenue, Boston, Mass. 02134. All inquiries, however, must be addressed to the Publisher in London.)

COPYRIGHT © 1969 by GUT. All rights of reproduction are reserved in respect of all papers, articles, tables, illustrations, etc., published in this Journal in all countries of the world.

# Signposts

THE ECONOMY OF THE COLUMNAR EPITHELIAL CELL (page 2) Professor D. H. Smyth sets out the latest theories and discusses them.

THREE DIMENSIONAL STRUCTURE OF THE HUMAN SMALL INTESTINAL MUCOSA (page 6) A fascinating demonstration of the micro anatomy of the small intestinal mucosa and its changes with villous atrophy.

CELL TURNOVER IN SMALL INTESTINAL MUCOSA (page 13) Studies of cell loss in rats with normal and abnormal mucosa. A considerably increased loss was noted in association with a nematode infestation.

MECHANISMS OF ABDOMINAL PAIN (page 19) An interesting study of the correlation between intraluminal pressure changes and abdominal pain.

PERSORPTION OF METALLIC IRON PARTICLES (page 32) It seems that metallic iron particles up to 52  $\mu$  can pass through the intestinal mucosa by a process of 'kneading' between the epithelial cells.

MAXIMAL GASTRIC ACID SECRETION (page 34) M. C. Mason, G. R. Giles, and C. G. Clark describe the technique needed for using continuous intravenous pentagastrin to obtain the maximum acid output.

LACK OF DIRECT INHIBITORY EFFECT OF HUMAN CIRCULATING PARIETAL-CELL ANTIBODIES ON SECRETION OF PARIETAL CELLS IN RATS (page 39) None of the IgG fractions processed from four sera containing intrinsic factor antibody inhibited gastric secretion in rats.

SERUM ALKALINE PHOSPHATASES (page 45) Heat inactivation and urea inhibition provide simple means of differentiating skeletal and hepatic phosphatases.

DELAYED HYPERSENSITIVITY TO DINITROCHLORO-BENZENE IN PATIENTS WITH CROHN'S DISEASE (page 52) These studies show that patients with Crohn's disease show a depression of delayed hypersensitivity reactions.

SERUM IMMUNOGLOBULINS AND LYMPHOCYTE TRANSFORMATION STUDIES IN COELIAC DISEASE (page 57) No consistent pattern emerged but there were significant differences in a fair proportion of cases.

WATER AND SODIUM ABSORPTION BY THE INTESTINE IN CHOLERA (page 63) The observations in this paper suggest an increased mucosal cell permeability rather than sodium pump inhibition.

CHOLEDOCHO-DUODENOSTOMY (page 68) The size of the stoma is important and must be at least 2 cm if the operation is to be a success.

GASTRIC ACID SECRETION (page 71) A significant reduction in the level of histamine-stimulated acid secretion has been demonstrated by a low salt diet alone or in combination with a diuretic, furosemide.

COMMENT (page 74) This includes notes on the 'Radiological signs of ulcerative colitis' (H. C. Anton), 'Relation between duodenal ulcer and blood group in people of the Udaipur region of India' (D. C. Sharma, R. C. Jain, and S. S. Dave), and 'Effect of intravenous calcium in gastric secretion' (M. Essam Fikry). Two short communications provide useful commentaries upon papers already published in *Gut*, and Dr Sharma and his colleagues add an observation peculiar to the Udaipur region of India.

We are most grateful to Dr J. G. Sowerbutts for help with the radiology and to Miss H. A. Burt for organizing follow-up clinics and doing the secretarial work.

#### REFERENCES

- Burgess, J. N., and Kidd, H. A. (1967). Choledochoduodenostomy in treatment of chronic pancreatitis and choledocholithiasis. *Brit. med. J.*, 2, 607-609.
- Burt, L. I. (1953). Choledochoduodenostomy in diseases involving the biliary and pancreatic ducts. *Med. J. Aust.*, 1, 805-807.
   Capper, W. M. (1961). External choledochoduodenostomy: an
- Capper, W. M. (1961). External choledochoduodenostomy: as evaluation of 125 cases. *Brit. J. Surg.*, 49, 292-300.
- Chamberlain, D. (1957). Choledochoduodenostomy. Brit. med. J., 1, 1418.
- Finsterer, H. (1952). Peut—on recommander la cholédoco-duodénostomie pour le traitement des maladies des voies biliaires? Mém. Acad. Chir., 78, 499-502.

- Fung, J. (1961). Liver fluke infestation and cholangio-hepatitis. Brit. J. Surg., 48, 404-415.
- Hess, W. (1965). Surgery of the Biliary Passages and the Pancreas, translated by H. Lamm, p. 365. Yan Nostrand, New York.
- Hosford, J. (1957). Treatment of stone in the common bile duct. Brit. med. J., 1, 1202-1205.
- Hurwitz, A., and Degenshein, G. A. (1964). The role of choledochoduodenostomy in common duct surgery: reappraisal. Surgery, 56, 1147-1150.
- Orr, K. B. (1966). External choledochoduodenostomy for retained common duct stone: reappraisal of an old technique. Med. J. 4vs. 2, 1072-1029
- Aust., 2, 1027-1029.

  Sanders, R. L. (1946). Indications for and value of choledochoduodenostomy. Ann. Surg., 123, 847-858.

  Le Quesne, L. P. (1964). Choledocholithiasis, pp. 118-163. In Surgery
- Le Quesne, L. P. (1964). Choledocholithiasis, pp. 118-163. In Surgery of the Gall Bladder and Bile Ducts, p. 160. Edited by R. Smith and S. Sherlock. Butterworths, London.
- Stevens, A. E., and Johnson, A. G. (1967). Choledochoduodenostomy. Brit. med. J., 3, 109-110.

# The December 1968 Issue

### THE DECEMBER 1968 ISSUE CONTAINS THE FOLLOWING PAPERS

### Signposts

Perfusion studies in relation to intestinal absorption G. E. SLADEN

Cell-mediated immune reaction to colon altered by bacteria SIDNEY FINK and ROLAND F. MAIS

Presence of a non-adrenergic inhibitory system in the human colon A. CREMA, M. DEL TACCA, G. M. FRIGO, and S. LECCHINI

Gastrin, acid, and bile G. J. COLE and A. M. CONNELL

Effects of SC 15396 on gastric secretion A. M. CONNELL, R. A. HILL, I. B. MACLEOD, W. SIRCUS, and C. G. THOMSON

Part I. Inhibition of canine gastric secretion by compound SC 15396 given orally and parenterally A. M. CONNELL

Part II. Inhibitory effect of SC 15396 on stimulated canine gastric secretion after surgical procedures I. B. MACLEOD and R. A. HILL

Part III. The action in the rat C. G. THOMSON and W. SIRCUS

Effect of orally administered prostaglandin E<sub>1</sub> on gastric secretion and gastrointestinal motility in man E. W. HORTON, I. H. M. MAIN, C. J. THOMPSON, and P. M. WRIGHT

Effect of vagotomy on the gastric secretion of acid chloride and pepsin in response to an antral stimulus and to insulin and maximal histamine stimulation F. I. TOVEY M. SWAMINATHAN, K. PARKER, and A. DANIELL

Psychological factors, operative procedures, and results of surgery for duodenal ulcer A. I. M. GLEN and ALAN G. COX

Care of leiomyosarcoma of the duodenum and a review of the literature E. O. OLURIN and T. F. SOLANKE

Adrenergic fibres in the human intestine L. CAPURSO, C. A. FRIEDMANN, and A. G. PARKS

Insulin potentiation of the augmented histamine response R. G. CHECKETTS, I. E. GILLESPIE, and A. W. KAY

The effect of vagotomy on the human gastrooesophageal sphincter C. V. MANN and J. D. HARDCASTLE

Incidence of hiatus hernia in asymptomatic subjects N. H. DYER and R. B. PRIDIE

Hyperparathyroidism associated with chronic pancreatitis in a family MARTIN C. CAREY and OLIVER FITZGERALD

A controlled trial of carbenoxolone sodium capsules in the treatment of duodenal ulcer R. D. MONTGOMERY, I. H. LAWRENCE, D. J. MANTON, K. MENDL, and PAMELA ROWE

Bromsulphthalein metabolism in acute alcoholic liver disease PATRICIA WILKINSON, D. M. O'DAY, K. J. BREEN, and J. G. RANKIN

An immunological and histoimmunological study of gastric sulphoglycoproteins in healthy and aspirin-treated dogs I. P. T. HÄKKINEN, R. JOHANSSON, and M. PANTIO

Folic acid malabsorption in cardiac failure R. D. HYDE and C. A. E. H. LOEHRY

Comment: The stomach in vian-deficiency anaemia D. J. C. SHEARMAN and N. D. C. FINLAYSON

Notes and activities

The British Society of Gastroenterology

Copies are still available and may be obtained from the PUBLISHING MANAGER,

### Notes and activities

INTERNATIONAL REFERENCES CENTRE The World Health Organization have established an International Reference Centre at St Mark's Hospital, London, for the histopathological classification and nomenclature of intestinal tumours under the direction of Dr Basil Morson. The following have been appointed as collaborating pathologists; Professor K. Elster (West Germany), Dr V. J. McGovern (Australia), Dr W. A. Hawk (USA), Professor R. Laumonier (France), Dr C. Marigo (Brazil), Dr J. Snijder (Holland).

SECONDED TO NIGERIA Dr John Naish has been seconded for a year as head of the Department of Medicine, Lagos, Nigeria.

EATING AT MEETINGS At the British Society of Gastroenterology meeting some years ago at Birmingham there was a happy confusion and the annual dinner was assumed to be for the British Society of Gastronomy! Birmingham clearly has a reputation in both fields, and this is further supported by this pleasing contribution by Dr Clifford Hawkins.

Lunch-time meetings are almost a daily event in many hospitals and provide an excellent opportunity for discussion. At our gastrointestinal lunch, we show interesting cases, see special radiographs collected by the radiologist, and sometimes have a progress report on a research topic. Attended by both physicians and surgeons, informality is the rule—in contrast to the careful 'work up' usual for other meetings. This encourages the showing of 'hot' and undiagnosed cases. The houseman keeps a record of proceedings and the chairman stops the meeting at 2 p.m.

A hazard of these meetings is that the lunch itself assumes too minor a role. Morsels hardly enough to raise the falling blood sugar are gobbled. This is tedious for the gastroenterologist with his natural interest in gastronomy. He wilts at the sight of a frugal trolley lunch comprising stale roll, spurious cold meats, and phony cheddar cheese.

However, privation is unnecessary, for a light lunch can be interesting. Indeed, a lunch-time meeting can be used for research upon gastronomy as well as gastroenterology. Various delicacies can, with little expense, be added to this lunch. Food should satisfy two criteria. It must be firm, for sticky foods are a nuisance, and anything brittle like meringues may burst into fragments. Smell debars onions and garlic, which are excreted in the breath and place an intolerable burden upon the patient, especially during ophthalmological examination. Otherwise there is a wide range. Just garnishing the meal with sweet or sour gerkins, good pickle, or tomato adds sufficient interest to stimulate a few millilitres of gastric juice. A carbohydrate lunch causes some to be drowsy and protein will prevent this: continental cold meats such as mortadella, salami, and liver sausage or cold sausages,

scotch eggs, or chicken drum sticks. Smoked salmon is too expensive but if it is decided to break through the snob barrier, cockles or mussels in vinegar are tasty. Cheese should be solid and not soft and runny. Cheese alone provides an opportunity for study, and according to André Simon, in his 'Concise encyclopaedia of gastronomy' there are over 250 varieties. Some doctors may be unfamiliar with the fine range of English cheeses: Cheshire, Cheddar, Stilton, Lancashire, Wensleydale, Leicester, Derby, and Caerphilly. New horizons in gastronomy as well as in gastroenterology can be explored.

BOOKS of interest to readers of Gut.

The importance of immunology as a growing point of medical research is widely recognized, and there are important applications in gastroenterology. We draw attention to 'Modern trends in immunology'. Volume 2 is edited by Robert Cruickshank and D. M. Weir and published by Butterworths, London, at 70s.

In May 1967 more than 90 medical scientists, including nearly all the leading gastrointestinal physiologists and clinicians concerned with problems of gastric secretion, attended a Congress in Oslo. The proceedings of this meeting have now been published in one volume of 700 pages and will be welcomed by all interested in this field. Edited by L. S. Semb and J. Myren, the volumes costs £10 7s. approximately.

'Exfoliative cytology of the stomach' is an admirable study based upon much excellent research work in recent years, some of which has been reported in this Journal. This book has three aims: first, to help those who have occasion to interpret cytological preparations from gastric material; secondly to view the technique and practice of gastric cytodiagnosis in historical perspective; and thirdly to consider the relevance of cytology in the context of the natural history of gastric cancer. It is a book which should be in every gastroenterologist's library. It is published by Butterworths, London, at 56s. All those engaged in research in gastroenterology have to keep in touch with advances in basic sciences and four recently published books merit mention. 'Selective toxicity' (4th edition, Methuen, £4 10s.) by Adrien Albert from Canberra University, Australia, deals with the physical and chemical properties responsible for the selectivity of action of drugs and chemicals and is essential reading for all concerned with the use of biologically active substances. The book covers the drugs used in treating diseases in man and in his economic animals and also fungicides and insecticides used in agriculture. The sections on molecular biology, chelation, and surface chemistry have been considerably expanded.

We have received no confirmation of the rumour that a leading American surgical journal is changing its name to Cut!