

Gut

Editor: R N Allan

Technical Editors: Sue Burkhart and Norma Pearce

Book Review Editor: D L Wingate

Editorial Assistant: Jackie Foulds

EDITORIAL COMMITTEE

A T R Axon
M F Bassendine
R M Batt
D G Colin-Jones
M F Dixon
G R Giles

I T Gilmore
M R B Keighley
M Lucas
P J Milla
D Nolan
C O'Morain

M E Parsons
W D W Rees
J M Rhodes
R I Russell
S Tabaqchali
I C Talbot

D R Triger
R C N Williamson
S J W Evans (*Statistical adviser*)
Editor
British Medical Journal

Gut publishes original papers and reviews concerned with practice and clinical research in gastroenterology. The field includes the basic science, molecular biology, physiology and diseases of the alimentary tract, the liver and pancreas including epidemiological, medical, surgical, radiological or histopathological aspects. Case reports will only be accepted if of exceptional merit. Letters related to articles published in *Gut* or with topics of general professional interest are welcomed. Authors are encouraged to include the names and addresses of four experts whom the authors consider suitable to peer review their work.

COMMUNICATIONS Two copies of the manuscript and figures should be addressed to the Editor, *Gut*, BMA House, Tavistock Square, London WC1H 9JR, UK. Manuscripts should follow the Vancouver conventions (see *Br Med J* 1979; i: 532-5. *Gut* 1979; 20: 651-2). They should be in double-spaced typewriting on one side of the paper only. The title page should include the name of the author with initials or distinguishing first name only, and the name and address of the hospital or laboratory where the work was performed. The paper must include a precise summary of the work of less than 200 words. Excessive use of abbreviation is discouraged. A covering letter signed by all authors must state that the data have not been published elsewhere in whole or in part and that all authors agree to publication in *Gut*. Previous publication in abstract form must be disclosed in a footnote. Papers must not be published elsewhere without prior permission of the Editorial Committee.

ACKNOWLEDGEMENT OF MANUSCRIPTS Manuscripts will only be acknowledged if an addressed postcard is enclosed.

ILLUSTRATIONS *Photographs* Unmounted photographs on glossy paper should be provided. Illustrations should not be inserted in the text but marked on the back with the figure numbers, title of paper and name of author. All photographs, graphs, diagrams should be referred to as figures and should be numbered consecutively in the text in Arabic numerals. The legends for illustrations should be typed on a separate sheet.

ETHICS Ethical aspects will be considered in the assessment of papers (see the Medical Research Council's publications on the ethics of human experimentation, and the World Medical Association's code of ethics, known as the Declaration of Helsinki (see *Br Med J* 1964; 2: 177)).

SI UNITS All measurements except blood pressure are expressed in SI units. In tables, and illustrations values are given in SI units, but a conversion factor must be supplied. For general guidance on the International System of Units and some useful conversion factors, see *The SI for Health Professions* (WHO, 1977). **NB: Such conversion is the responsibility of the author.**

REFERENCES These follow the Vancouver system - that is, references numbered consecutively in the text and listed numerically with titles abbreviated in the style of *Index Medicus*, *Standard journal article* - (list all authors when six or less; when seven or more, list first three and add *et al*): James A, Joyce B, Harvey T. Effect of longterm cimetidine. *Gut* 1979; 20: 123-4. **NB: Accurate punctuation is essential.**

CORRECTIONS other than printers' errors may be charged to the author.

REPRINTS Reprints will be available on payment of the necessary costs; the number of reprints required should be sent to the Publishing Manager on the form provided with the proof.

NOTICE TO ADVERTISERS All applications for advertisement space and rates should be addressed to the Advertisement Manager, *Gut*, BMA House, Tavistock Square, London WC1H 9JR.

NOTICE TO SUBSCRIBERS *Gut* is published monthly. The annual subscription rates are £102 inland and £119 overseas (USA \$192.00). Reduced subscriptions of £52 available to trainees for one year. Orders should be sent to the Subscription Manager, *Gut*, BMA House, Tavistock Square, London WC1H 9JR. Orders can also be placed with any leading subscription agent or bookseller. (For the convenience of readers in the USA subscription orders, with or without payment, can be sent to: *British Medical Journal*, Box 560B, Kennebunkport, Maine 04046. All enquiries, however, must be addressed to the Publisher in London.) Subscribers may pay for their subscriptions by Access, Visa, or American Express by quoting on their order the credit or charge card preferred together with the appropriate personal account number and the expiry date of the card. All overseas copies of the journal are sent by accelerated surface post. If required, full air mail rates and enquiries for single copies already published should be addressed to the Publisher in London.

COPYRIGHT © 1990 *Gut*. This publication is copyright under the Berne Convention and the International Copyright Convention. All rights reserved. Apart from any relaxations permitted under national copyright laws, no part of the publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission of the copyright owners. Permission is not, however, required to copy abstracts of papers or articles on condition that a full reference to the source is shown. Multiple copying of the contents of the publication without permission is always illegal.

Second class postage paid, Rahway NJ. Postmaster: send address changes to: *Gut*, c/o Mercury Airfreight International Ltd Inc, 2323 Randolph Avenue, Avenel, NJ 07001, USA. ISSN 0017-5749

4 Savarino V, Mela GS. Comparison of gastric aspiration and continuous pH monitoring with antimony electrode: methodological remarks. *Digestion* (in press).

Inhibition of nocturnal acidity

SIR.—We read with interest the paper by Professor Bianchi Porro and his coworkers (*Gut* 1990; 31: 397–400) indicating that inhibition of nocturnal acidity is important, but not essential, for duodenal ulcer healing. We also have expressed the view that inhibition of nocturnal acidity is by no means paramount in the healing of duodenal ulcers. This was, however, related to the surgical treatment of duodenal ulceration and some of our data on H₂ receptor antagonists and inhibition of acidity are at variance with that of the authors.

In a study published in the *British Journal of Surgery*¹ we compared the effects of ranitidine 300 mg nocte with highly selective vagotomy in subjects with duodenal ulceration. We were able to show that, as expected, ranitidine given at night had a profound effect on nocturnal acidity but that highly selective vagotomy was a much more potent inhibitor of daytime than night time acidity. From these data we suggested that inhibition of 24 hour acidity was important in the healing of duodenal ulcers and not particularly inhibition of nocturnal acidity, as first suggested by Dragstedt. Ranitidine is particularly effective in inhibiting 24 hour acidity when given at night and, similarly, highly selective vagotomy is effective in reducing 24 hour acidity but most of the effects seem to be during the day. Because of these findings we were particularly interested to know whether ranitidine given in the morning would be as effective in the inhibition of 24 hour acidity as when given at night. In a study of 16 normal subjects,² we compared the effect of ranitidine 300 mg at night with 300 mg in the morning in normal subjects. This showed that although the median 24 hour pH was not markedly different between the two treatment groups, the reduction in acidity afforded by night time ranitidine was significantly better than that afforded by the morning dose. This is in contrast to the conclusions of Professor Bianchi Porro *et al.*, who were unable to show such a difference.

One reason for the difference between our findings and those of the authors may relate to the totally inappropriate method used by the authors to assess acid inhibition. The authors have calculated the area under the curve of pH *v* time. Since pH units are on a logarithmic scale an analysis of this type has little meaning, as Walt³ has indicated. The appropriate method of analysis is to measure the area under the curve of the hydrogen ion activity *v* time. The area under this curve is a measure of the 24 hour acidity and, when active medication is compared against placebo, the percentage reduction in acidity can be calculated. This is not possible using any method which involves the pH. In addition, the authors have derived means and standard deviations from the areas under the patients' individual curves in spite of this being inappropriate for any value derived from pH units. An additional criticism is that these individual values are expressed to three decimal places despite being derived from a pH electrode calibrated at room temperature. The use of parametric statistical methods for analysis, such as the Student's *t* test is also inapplicable as Walt³ has indicated. Indeed, it seems likely that if the authors' data were analysed correctly as described by Walt and appropriate statistical methods applied, the

conclusions would be in agreement with our own.

It is our hypothesis that although the suppression of nocturnal acidity is not the sine qua non in the healing of duodenal ulcers, ranitidine given at night is more potent than ranitidine given in the morning because it has a superior effect on suppression of 24 hour acidity. The authors' clinical results also tend to support this view, since the nocturnal treatment was superior in respect of the healing rates at two weeks. This difference did not achieve statistical significance, but as the authors indicate, this is not unexpected with such small numbers in the study. To settle this matter would require a clinical study with large numbers of patients since meta analysis⁴ would predict that the difference in healing rates between the two regimens would be quite small.

J N PRIMROSE

N PATEL

M R ROGERS

University Department of Surgery,
St James's University Hospital,
Leeds LS9 7TF

- 1 Rogers MJ, Holmfield JHM, Primrose JN, *et al.* A comparison of the effects of placebo ranitidine and highly selective vagotomy on 24-hour ambulatory intragastric pH in patients with duodenal ulcer. *Br J Surg* 1988; 75: 961–5.
- 2 Patel N, Rogers MR, Primrose JN. Why do duodenal ulcers heal faster when H₂ receptor antagonists are given at night? *Gastroenterology* 1990; 98: A104.
- 3 Walt R. Twenty four hour intragastric acidity analysis for the future. *Gut* 1986; 27: 1–9.
- 4 Jones DB, Howden CW, Burget DW, Kerr GD, Hunt RH. Acid suppression in duodenal ulcer: a meta-analysis to define optimal dosing with antisecretory drugs. *Gut* 1987; 28: 1120–7.

NOTES

Register of Primary Immune Deficiencies

In line with other European countries, a register of all patients in the United Kingdom with primary immune deficiencies is being compiled. This is organised by Dr J Gooi, Immunology Department, Blood Transfusion Service, Bridle Path, Leeds LS15 7TW. In order to gain complete coverage we should be grateful if any physicians or general practitioners, who have not already been contacted and who are currently managing such patients, could send details of their patients to Dr Gooi. Registration forms are available on request from Dr J Gooi (tel: 0532 645091) or Dr H Chapel (tel: 0865 817305), Immunology Department, John Radcliffe Hospital, Oxford OX3 9DU.

Hopkins' Endoscopy Prize

The Hopkins' Prize is offered annually for a paper on any topic relating to endoscopy. Applicants are invited to submit a three page summary of the proposed paper to the Endoscopy Committee of the BSG who will recommend to Council the recipient of the 1991 award. The closing date for entries is Friday, 14 December, 1990.

Further information from: Dr N Krasner, Department of Medicine, Walton Hospital, Rice Lane, Liverpool L9 1AE.

Pancreatic Society of Great Britain and Ireland

Symposium on 'Pathogenesis of Pancreatitis' to be held 15 November 1990. Details from Joan M Braganza, Manchester Royal Infirmary, Oxford Road, Manchester M13 9WL.

Course in gastroenterology

A course designed for consultants and registrars, including those who do not specialise in gastroenterology, will be given on 6–9 January, 1991 in Oxford, and cover topics of current interest in relation to the normal functioning of the digestive system and its diseases. Course fee £100. Closing date for applications 1 December, 1990.

Details from Dr D P Jewell, Radcliffe Infirmary, Oxford OX2 6HE. Tel: 0865–816829.

American Association for the Study of Liver Diseases Postgraduate Course

Annual Postgraduate Course, Common Liver Problems: An Update on Practice and Science, at the Marriott Hotel in Chicago, Illinois, 3–4 November 1990. The postgraduate course will be followed by the 41st Annual Meeting of the American Association for the Study of Liver Disease on 5–6 November 1990. For further information contact: Registration Manager, Slack Inc, 6900 Grove Road, Thorofare, NJ 08086–9447 USA. Tel: (609) 848–1000.

North American Society for Pediatric Gastroenterology and Nutrition

2–3 November, 1990, The Palmer House Hotel, Chicago, Illinois. For further information, registration, and housing forms, please contact: NASPGN Registration Manager, c/o Slack, Inc, 6900 Grove Road, Thorofare, NJ 08086–9447 USA. Tel: (609) 848–1000.

Sir Francis Avery Jones BSG Research Award 1991

Applications are invited by the Education Committee of the British Society of Gastroenterology who will recommend to Council the recipient of the 1991 Award. Applications (15 copies) should include:

- (1) a manuscript (2 A4 pages *only*) describing the work conducted;
- (2) a bibliography of relevant personal publications;
- (3) an outline of the proposed content of the lecture, including title;
- (4) a written statement confirming that all or a substantial part of the work has been personally conducted in the United Kingdom or Eire.

The Award consists of a medal and a £100 prize. Entrants must be 40 years or less on 31 December 1991 but need not be a member of the BSG. The recipient will be required to deliver a 40 minute lecture at the Spring Meeting of the Society in Manchester in 1991.

Applications (15 copies) should be made to: The Honorary Secretary, BSG, 3 St Andrew's Place, Regent's Park, London NW1 4LB by 1 December 1990.