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BMA House, Tavistock Square, London WC1H 9JR; Tel 0171 383 6209

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**ARTICLES** Papers should usually be no more than 2000 words long and should report original research of relevance to the understanding and practice of clinical pathology. They should be written in the standard format with a structured abstract. The abstract should contain the headings *Aims, Methods, Results* and *Conclusions* and be no more than 250 words long. The body of the paper should have separate sections for the introduction, the methods and the results, and the discussion. If statistics are used the methods and confidence intervals should be stated. Authors are urged to seek expert advice if in doubt. Revised manuscripts should be submitted as hard copy and on disk. Detailed instructions will be sent to authors on invitation to revise. Occasional Articles have a less rigid format, being 1500-2000 words in length. They are usually invited by the editors; though unsolicited submissions will be considered. Single case reports and brief papers (such as those describing negative findings) will usually be considered only as Short Reports. The format for these is an unstructured 150 word summary, up to 1500 words of text, up to two tables or figures (or one of each) and no more than 10 references. Letters to the Editor should normally refer to previously published papers or make some point about the practice of pathology. They are not intended to be a vehicle for the presentation of new data unrelated to earlier Journal articles.

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**REFERENCES** The references must be given in the Vancouver style.

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Second class postage paid, at Rahway N. J. Postmaster to send address changes to: Journal of Clinical Pathology c/o Mercury Airfreight International Ltd. Inc., 2323 Randolph Avenue, Avenel, NJ 07001, USA. ISSN 0021-9746.

Cover illustration:  
Photomicrograph of crystals  
of L-ascorbic acid through  
crossed polarising filters.  
Supplied by Dr J Crocker.

Published by BMJ  
Publishing Group and  
printed in England by  
Latimer Trend & Co.,  
Plymouth

in establishing the cause of the patient's recurrent thrombotic occlusions in life.

MJ PHILLIPS  
Consultant Haematologist,  
Taunton and Somerset Hospital,  
Musgrove Park,  
Taunton,  
Somerset TA1 5DA

- 1 Levi M, Bronkhorst C, Noorduyt LA, Vreeken J. Recurrent thrombotic occlusions of arteries and veins caused by intravascular metastatic adenocarcinoma. *J Clin Pathol* 1994;47:858-9.

*Dr Levi comments:*

Although not reported in our paper, a bone marrow trephine biopsy was performed in our patient and did not reveal any abnormalities. At necropsy, however, bone marrow studies were not carried out and therefore malignant cells may have been missed in the original biopsy. We can only underline the importance of bone marrow studies in patients with suspected but unconfirmed malignant disease.

M LEVI  
Department of Internal Medicine,  
Academic Medical Centre, F-4,  
Meibergdreef 9,  
1105 AZ Amsterdam,  
The Netherlands

**A proposed SI unit for number**

I believe that a dimensionless unit for number (unit) would be valuable, fill a gap, simplify the expression of very large and very small numbers, and in pathology have particular use for particle counts. I propose the "quant", a name which suggests its use and is linguistically neutral, and the symbol "q", following the convention that only units named after a scientist use an upper case letter in their symbol — except for L as the alternative to l for the litre. The quant would carry the standard prefixes for multiples and sub-multiples used with all symbols for units.<sup>1</sup> For example, an erythrocyte count in health, instead of  $5.1 \times 10^{12}$ , which requires a multiplication sign and a superscript and can be inconvenient for typing and word-processing, would be 5.1 Tq/l (teraquants per litre) and similarly a leucocyte count would be 6.8 Gq/l.

Perhaps such a unit has already been considered and rejected by the International Committee for Weights and Measures (CIPM)?

DN BARON  
47 Holne Chase,  
London N2 0QG

- 1 Baron DN. *Units, symbols, and abbreviations*. 5th edn. London: Royal Society of Medicine Press, 1994.

*Urea and ammonium concentrations in serum and gastric juice in children with and without H pylori infection. Results presented as means and ranges*

<i>H pylori</i> status	Blood serum		Gastric juice	
	Urea (mmol/l)	Ammonium (mmol/l)	Urea (mmol/l)	Ammonium (mmol/l)
Positive	4.12 ± 0.46 (2.2-7.5)	0.04 ± 0.01 (0.03-0.05)	1.37 ± 0.14 (0.09-3.33)	2.79 ± 0.44 (0.68-3.34)
Negative	4.46 ± 0.41 (2.3-7.8)	0.04 ± 0.02 (0.02-0.06)	3.56 ± 0.36 (1.04-5.36)	0.27 ± 0.09 (0.0331-0.69)

**Intra-gastric urea hydrolysis in children infected with *Helicobacter pylori***

We read with interest the article by Neithercut *et al*<sup>1</sup> reporting the measurement of urea and ammonium concentrations in gastric juice in patients infected with *Helicobacter pylori*. This research is important as this non-invasive technique may be of diagnostic value, particularly in children, and also because diagnosis of *H pylori* infection following biopsy of the gastric mucosa may lead to false negative results due to patchy dissemination of the organism.<sup>2</sup>

Here, we report the measurement of urea and ammonium concentrations in gastric juice in 63 children (mean age  $9.4 \pm 2.3$  years, range 5 to 14 years) with *H pylori* associated gastritis. The control group comprised 24 children in the same age range with *H pylori* infection. *H pylori* infection was diagnosed by the rapid urease test, histological examination following staining with Giemsa and serological analysis for the detection of specific IgG antibodies (Roche, Switzerland).<sup>3</sup> Urea and ammonium concentrations in gastric juice and blood serum were measured using a manual diacetylmonoxime method (Lachema, Brno, Czechoslovakia) and a modified Keller<sup>4</sup> method, respectively. Gastric juice pH was also measured. Children with bile reflux were excluded from this study to reduce the possibility of false positive results.<sup>5</sup> Statistical analysis was performed using the parametric Student's *t* test.

The results of our study are summarised in the table. The results showed significant differences between the urea and ammonium concentrations in gastric juice of children with and without *H pylori* infection ( $p < 0.01$ ).

The concentrations of these substrates in blood did not exceed normal values and did not differ significantly from each other ( $p > 0.05$ ), therefore, serum concentrations cannot influence the concentrations of those substrates in gastric juice.

Statistical analysis suggests that the pH of gastric juice does not correlate with urea and ammonium concentrations and that the urea and ammonium concentrations do not correlate with each other.

In conclusion, measurement of urea and ammonium concentrations in gastric juice may be useful for the diagnosis of *H pylori* infection in children.

AA NIJEVITCH  
ZM YELITCHEVA  
Bashkirian Children's Hospital,  
450022 Ufa, Bashkortostan, Russia

- 1 Neithercut WD, El Nujumi AM, McColl KEL. Measurement of urea and ammonium concentrations in gastric juice. *J Clin Pathol* 1993; 46:462-4.  
2 Glassman MS, Dallal S, Berezin SH, Bostwick HE, Newman LJ, Perez-Perez GI, *et al*. *Helicobacter pylori*-related gastroduodenal disease in children. Diagnostic utility of enzyme-linked immunosorbent assay. *Dig Dis Sci* 1990; 35:993-7.

- 3 Mitchell HM, Bohane TD, Tobias V, Bullpitt P, Daskalopoulos G, Carrick J, *et al*. *Helicobacter pylori* infection in children: potential clues to pathogenesis. *J Pediatr Gastroenterol Nutr* 1993; 16:120-5.  
4 Keller H, Müller-Beissenhirtz W, Neumann E. Eine methode zur ammoniakbestimmung im cappillarblut. *Klin Wochenschr* 1967;45:314-16.  
5 Bornschein W, Heilmann KL, Bauernfeind A. Intra-gastrale ammoniakbildung bei *Campylobacter pylori* - assoziierter gastritis. *Med Klin* 1989;84:329-32.

## Notices

**Continuing Medical Education in Europe: The way forward through European collaboration**

A major international conference bringing together the leaders of medical education in Europe will take place on

Thursday 30 and Friday 31 March 1995

at

Royal College of Physicians,  
11 St Andrews Place,  
London NW1 4LE

(by kind permission of the Treasurer)

For further information please contact:  
Mrs J M Coops, Conference Office,  
c/o The Fellowship of Postgraduate  
Medicine, 12 Chandos Street, London  
W1M 9DE (tel: 0171 636 6334; fax:  
0171 436 2535).

**Clinical Pathology Accreditation (UK) Ltd**

CPA Conference 1995

**Pathology goes to market**

Wednesday 22 March 1995

Royal College of Physicians,  
11 St Andrew's Place, London NW1 4LE  
(by kind permission of the Treasurer)

CPA (UK) Ltd is holding its third annual symposium in March 1995. The previous events were oversubscribed and widely reported. This year we are concentrating on the views of purchasers and providers of pathology, as the temperature of the marketplace rises. The content of the symposium should once again ensure a lively discussion.

Registration Fee: £95 (to include coffee, lunch and tea).

Further information and registration forms can be obtained from: CPA Central Office, Pathology Block, Children's Hospital, Sheffield S10 2TH (tel: 0742 797472; fax: 0742 780428).

**UK NEQAS for Blood Coagulation;  
Participants' Meeting**

14 March 1995

Octagon Centre,  
University of Sheffield, UK

A one day meeting has been organised for participants and interested observers of the UK National External Quality Assessment Scheme for Blood Coagulation. This will be held on Tuesday 14 March 1995 at the Octagon Centre, University of Sheffield, Western Bank, Sheffield S10 2TQ, UK.

Invited speakers include Dr A M H P van den Besselaar, Leiden, The Netherlands; Professor D A Triplett, Chairman and Organiser, College of American Pathologists (CAP), USA; Dr T Barrowcliffe, National Institute of Biological Standards; Professor S J Machin, London; Dr M Greaves, Sheffield; and Dr I Mackie, London. Topics to be covered include the use of plasma calibrants for local ISI determination, clinical and laboratory aspects of heparin dosage management, and the lupus anticoagulant. Opportunity will be given for open discussion.

For further information, please contact: Mr T A L Woods, UK NEQAS for Blood Coagulation, Room E24, CSUH Royal Hallamshire Hospital, Glossop Road, Sheffield S10 2JF (tel: 0114 270 0862; fax: 0114 275 8989).

**British Society for Clinical Cytology**  
presents

**Cytopathology of serous fluids—  
the 3rd Annual Tutorial**

which will take place on

17 and 18 March 1995

at

The Royal London Hospital

For further information, please contact: BSCC Secretariat, c/o Thorn EMI, Central Research Laboratories, Dawley Road, Hayes, Middlesex UB3 1HH (tel: 0181 606 2511; fax: 0181 606 2563).

**Diagnostic cytopathology**

The University of Birmingham

3 to 7 April 1995

Course Director: Dr Jennifer Young

A five day intensive course designed for trainee pathologists preparing for the MRCPPath examination, candidates for the Diploma in Cytopathology of the Royal College of Pathologists and consultant pathologists desiring further experience in cytopathology.

Subjects covered include serous fluids, respiratory and gastrointestinal tracts, development and technique of fine needle aspiration cytology, FNAC of breast, lymph nodes, thyroid, salivary glands, liver-biliary system, pancreas, upper and lower urinary tract and prostate, brain smears and CSF, soft tissue, bone and skin, imprint, and scrape cytology as an adjunct to frozen section, special techniques, self-assessment cases. Superior accommodation with ensuite facilities available.

Further enquiries to: Dr J A Young, The University of Birmingham, Department of Pathology, The Medical School, Edgbaston, Birmingham B15 2TT (tel: 0121 414 4002; office: 0121 414 4017; fax: 0121 414 4019).

A two day course in

**Haematology morphology**

will be held at

St Mary's Hospital Medical School

on Monday and Tuesday, 10 and 11 April  
1995

This course, which includes both lectures and work at individual microscopes, is suitable for updating career grade post holders in haematology and is also valuable for trainees in haematology. CME approved. The cost is £110 including lunches or £95 without lunches. Those wishing to participate should apply in writing, enclosing a cheque for the appropriate amount, to: Dr B J Bain, Department of Haematology, St Mary's Hospital Medical School, Norfolk Place, London W2 1PG. Cheques to be made payable to: Imperial College.

A one day course in

**Histopathology of the bone marrow**

will be held at

St Mary's Hospital Medical School

on Wednesday 12 April 1995

The Course is for Consultant Haematologists, Consultant Histopathologists and advanced trainees in Haematology and Histopathology. CME approved. The cost is £75 (light lunch included). Those wishing to participate should apply in writing, enclosing a cheque for the appropriate amount, to: Dr B J Bain, Department of Haematology, St Mary's Hospital Medical School, Norfolk Place, London W2 1PG. Cheques should be made payable to: Imperial College.