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, Noorduyn 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 submultiples used with all symbols for units.[1] For example, an erythrocyte count in health, instead of $5{\cdot}1 \times 10^{12}$, 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.

Intragastric urea hydrolysis in children infected with *Helicobacter pylori*

We read with interest the article by Neithercut *et al*[1] 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.[2]

Here, we report the measurement of urea and ammonium concentrations in gastric juice in 63 children (mean age 9·4 ± 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).[3] Urea and ammonium concentrations in gastric juice and blood serum were measured using a manual diacetylmonoxime method (Lachema, Brno, Czechoslovakia) and a modified Keller[4] 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.[5] 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 ($p<0{\cdot}01$).

The concentrations of these substrates in blood did not exceed normal values and did not differ significantly from each other ($p>0{\cdot}05$), 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.
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4 Keller H, Müller-Beissenhirtz W, Neumann E. Eine methode zur ammoniakbestimmung im cappillarblut. *Klin Wochenschr* 1967;**45**:314–16.
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Urea and ammonium concentrations in serum and gastric juice in children with and without H pylori infection. Results presented as means and ranges

	Blood serum		*Gastric juice*	
H pylori status	*Urea (mmol/l)*	*Amonium (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)

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