Table *Total amylase, P, and S type amylase activities in patients with liver disease*

Group	Mean (SD)		
	Total amylase (IU/l)	*P type isoamylase (IU/l)*	*S type isoamylase (IU/l)*
A Normal volunteers (n = 30)	199 (66)	110 (44)	89 (45)
reference range	77–317	25–184	1–184
B Patients without liver disease (n = 18)	194 (47)	96 (30)	98 (47)
C Patients with liver disease (n = 30)	234 (88)*	127 (69)	107 (79)
Primary biliary cirrhosis (n = 7)	210 (84)	92 (38)	118 (63)
Chronic active hepatitis (n = 9)	242 (74)	164 (71)**	78 (47)
Alcoholic cirrhosis (n = 9)	253 (121)	122 (87)	131 (116)

Patients *v* normal controls; *p < 0·1; **p < 0·05.

While evaluating the "Phadebas" isoamylase kit (Pharmacia) by comparing it with electrophoresis,[12] we applied the inhibition technique to study the serum isoamylases in patients with liver diseases. Sera were also obtained from normal volunteers and patients without liver diseases (Table). The diagnosis was based on clinical examination and laboratory findings. The distribution of men to women was similar in the three groups. We separated those who suffered from primary biliary cirrhosis, chronic active hepatitis, and alcoholic cirrhosis.

Our findings differed from those of Bhutta and Rahman[2] and agreed with those of others.[1 6 13] Although MacGregor and Zakim[1] reported that hyperamylasaemia associated with chronic active hepatitis may be of salivary gland origin, as part of the spectrum of extrahepatic manifestations of the disease, we found that it was of pancreatic gland origin.

Finally, we found that three of our patients with alcoholic cirrhosis had S type hyperamylasaemia, whereas only one had P type hyperamylasaemia. The findings of this study suggest that in patients with liver disease and hyperamylasaemia the prominent type of isoenzyme is that of pancreatic origin, with the exception of patients with alcoholic cirrhosis where the prominent isoenzyme is that of S type. Further details of our study, including comparison of results between volunteers and patients and correlation with an electrophoretic technique for isoamylase separation, will be published elsewhere.

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Cryptosporidium sp a "new" human pathogen

We were delighted to see our paper in print and thank you for doing such an excellent job of the presentation. Unfortunately, on reading the published version, two errors were apparent, which we feel are of sufficient importance to require an addendum. The first is an editorial correction in the final proof copy. This had to be dealt with in great haste, and the nature of your correction was not realised. The error is on page 1323, right hand column, in which the word "not" has been incorrectly inserted. The point may be a pedantic one, but it is widely agreed that although extracytoplasmic, the fact that the parasite is enveloped by the outer cell membranes makes it intracellular. The word "not" should, therefore, be deleted from the text.

Secondly, in Table 2, page 1327, right hand column. I have been asked to point out that Liverpool did give a figure for total positives (41), although the denominator figure had not been given.[1]

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Book reviews

Cellular and Molecular Aspects of Aging: The Red Cell as a Model. Progress in Clinical and Biological Research. Vol 195. Ed JW Eaton, Diane K Konzen, JG White. (Pp 464; £52.) Alan R Liss Inc. 1985.

Because of its readily measured biological processes and its finite life span, the red blood cell is a good model for investigating the cellular and molecular aspects of aging. This was the theme of a conference held in Minneapolis in September 1984 with some 80 participants. The 30 papers presented at that conference, together with a verbatim record of the discussions are here presented in the *Progress in Clinical and Biological Research* series. Is aging controlled by 2, 3-DPG and determined by the DPG gene, as suggested by Brewer, or is the process determined by a programmed mechanism of progressive loss of genetic information? The problem of determining which is cause and which is effect was well illustrated in a study on the role of raised red cell calcium concentration: innocent bystander or kiss of death? In the end the validity of using the relatively