All patients were nursed in isolation and no secondary cases occurred. The klebsiella strains showed resistance to cefotaxime and aztreonam, and up to five further classes of antibiotics. Resistance to third-generation cephalosporins was successfully transferred to Escherichia coli J62 from the K pneumoniae strains from the first two cases, consistent with these ESBLs being plasmid-mediated; and plasmids of 60 and 70 MD, respectively, were found on agarose gel electrophoresis.

These three cases illustrate the possible origins of organisms producing ESBLs—namely, international transfer with the patient, inter-hospital transfer, and selection of the resistant strain within the hospital. Nosocomial outbreaks of ESBL-producing Enterobacteriaceae with multiple resistance to a range of antibiotic classes have occurred in Europe and the USA. The continued use of third-generation cephalosporins exerts substantial selection pressure in favour of ESBL-producing organisms and also for the evolution of ESBLs. This, together with the introduction of similar oral cephalosporins, such as cefixime, into the community, should prompt laboratory surveillance for such strains. We suggest a variation of the double-disc synergy test on isolates showing moderate resistance to cefotaxime. Should the use of third-generation cephalosporins be restricted?

We thank Dr T. L. Pitt, Central Public Health Laboratory, for serotyping the isolates, and Prof J. M. T. Hamilton-Miller and Dr S. H. Gillespie for advice and comments.

In-vivo monitoring of neuronal loss in Creutzfeldt-Jakob disease by proton magnetic resonance spectroscopy

SIR—The advent of bovine spongiform encephalopathy has renewed interest in novel approaches to the clinical diagnosis of spongiform encephalopathies such as Creutzfeldt-Jakob disease (CJD). We have seen a case of sporadic CJD where the only magnetic resonance imaging abnormalities were mild cortical atrophy and hyperintensities in the lentiform nuclei, as noted previously. By contrast, proton magnetic resonance spectroscopy (MRS) demonstrated significant metabolic alterations in cortical grey matter and white matter and in striatum. Right frontal lobe biopsy, done 2 days after these scans, revealed fine vacuolation of the neuropil (spongiform change) in the deep grey-matter with a fourfold loss of metabolites. The remaining metabolite pattern exhibited a further reduction of NAA relative to creatines and choline.

Fig 1 shows the proton MR spectrum of the left parietal white-matter.
High frequency of concomitant pancreatitis in salmonella enteritis

Sir,—Dr Baird-Parker (Nov 17, p 1231) underscores the increasing incidence of foodborne salmonellosis in many countries of the western world.1 We report some observations that are relevant to the clinical picture and differential diagnosis of this diarrhoeal condition.

Stimulated by a case of salmonellosis with severe concomitant pancreatitis we prospectively followed all culture-proven cases of salmonella enteritis for symptoms and laboratory signs of concomitant pancreatitis. Within 18 months we treated 47 patients with salmonella enteritis (17 men; mean age 45 [range 16–79] years). 16 patients had Salmonella typhimurium and 31 had S enteritidis, 1 patient having both. The frequency of concomitant pancreatitis as assessed by raised serum amylase and lipase was:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concomitant pancreatitis</td>
<td>29 (62%)</td>
</tr>
<tr>
<td>No pancreatitis</td>
<td>18 (38%)</td>
</tr>
</tbody>
</table>

Mean age (range) 44.8 (18–79) 45.8 (16–71)

Concomitant pancreatitis was found in 7 patients with S typhimurium and in 22 with S enteritidis (p < 0.05, Chi-square test). The course of pancreatitis was usually mild to moderate, with some pancreatic enlargement, as shown by abdominal sonography, in about half the patients. Pancreatitis was unrelated to treatment of salmonellosis either by fluid replacement alone or antibiotics (mainly ciprofloxacin).

The high frequency of concomitant pancreatitis in salmonella enteritis in our series is in contrast with other publications. In gastroenterological textbooks salmonella pancreatitis is not mentioned or is merely listed in tables.3 Only in paediatric publications has some attention been paid to these forms of pancreatitis complicating viral or bacterial infections.4 The pathogenetic mechanisms are unknown as far as we are aware. By analogy to other infections, a haematogenous attack on parenchymal pancreatic cells seems probable.

These observations indicate that patients with upper abdominal pain in salmonella enteritis should be investigated for concomitant pancreatitis, and in those with hyperamylasaemia and diarrhoea, salmonellosis should be considered as a possible explanation for this clinical condition.

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FRIEDRICH RENNERT
CHRISTIAN NIMERT
NIKOLAUS DEMMELBAUER


Mega-dose methylprednisolone for chronic idiopathic thrombocytopenic purpura

SIR,—Dr Balint and colleagues (May 4, p 1106) mention, among other approaches, conventional prednisolone (1–2 mg/kg daily) administration for the treatment of idiopathic thrombocytopenic purpura (ITP).

With colleagues, I have shown that such treatment for 2 weeks is not effective in ITP; on the contrary it delays spontaneous recovery in childhood acute ITP.1 Mega-dose oral or intravenous methylprednisolone (MDMP; 30 mg/kg daily for 3 days followed by 20 mg/kg for 4 days; each dose given before 0900 h) has, however, proved very effective. Platelet counts increased to over 150 000/µl within 3 days in about two-thirds of patients.1,2 Intravenous MDMP has also been used successfully in children4 and adults5,6 with chronic ITP. We have used oral MDMP (30 mg/kg and 20 mg/kg daily for 4 days; each dose given before 0900 h) in 10 children with chronic ITP (ie, duration longer than 6 months). 1 child could not be followed. Platelet count increased to over 150 000/µl in 6 patients within 3 days and in 8 by 2 weeks.


Fig 2—Localised proton MR spectra and paramedian grey-matter.

PATIENT

NAA

PCr/Cr

Ins

Cho

GRAY M

CONTROL

Chemical shift / ppm

4.0
3.5
3.0
2.5
2.0
1.5

H. BRUHN
T. WEBER
V. THORWIRTH
J. FRAHM
