assessment, painstaking attention to technique during implantation, and the greatest possible care to avoid infection.


Pancreatitits

Most clinicians recognise two principal types of pancreatitis.1 Acute pancreatitis is a serious and painful illness, which is usually short lived but carries an appreciable mortality and a fearsome list of complications. While it is generally self-limiting there may be relapse. Surgery should be avoided if possible, though it may be required for diagnosis3 or the management of sequelae. In contrast, chronic pancreatitis is associated with permanent and perhaps progressive loss of exocrine function and may also cause irreversible diabetes mellitus. It frequently results in persistent or intermittent abdominal pain, which may not respond to analgesics, and, indeed, may occasionally drive its victims to suicide.

The two known causes of pancreatitis are biliary disease and alcoholism. White4 stated that in 559 cases of acute pancreatitis biliary disease was associated in 74% and alcoholism in 5-5%. In contrast, of 258 patients with chronic pancreatitis, 75% were alcoholics and only 1% had biliary disease. Certainly studies in Britain have shown that biliary disease is common or usual in patients with acute pancreatitis.4-6 Alcoholism was a rare4 but now appears to be a more frequent cause.5,6 Nevertheless, in chronic pancreatitis in Britain the association with alcoholism has been modest7-9 compared with reports from Europe and the USA, where up to 100% prevalence has been reported.10 These data suggest that we should be cautious in interpreting reports of treating pancreatitis from other countries, where the nature of the disease may be different. There are some lessons to be learnt, however, particularly for those patients who require resection of the pancreas or other surgical procedures for chronic pancreatitis. The Mayo Clinic’s experience11 of 137 patients with chronic pancreatitis treated by surgery—54 with resection—showed that the abuse of alcohol, absence of gallstones, and presence of pancreatic calcification, steatorrhoea, or diabetes were unfavourable indicators. Furthermore, there was an appreciable late mortality (20% in a mean of 44 months), despite a low post-operative death rate.

In a more extensive review in Michigan of 600 patients treated with surgery, 149 had pancreatic resection for chronic pancreatitis.12 This series included 117 alcoholics, but only 11 patients had gallstones, suggesting that this was not important aetologically as this was roughly the number expected by chance. Nineteen patients had a proximal operation (pancreatoduodenectomy). On various indications the others had either partial (40-80%) or subtotal (80-95%) distal pancreactectomies. Three patients died postoperatively, and 30 died later, but about half the operations produced a completely satisfactory result, with the presence of alcoholism being the most important factor in predicting failure to improve.

The only statistically significant difference between the results of subtotal and partial resection was the higher prevalence of diabetes after the former. Overall there were fewer untoward sequelae after partial resection, and the authors recommend that ideally no more than 80% of the gland should be resected.

In a disease which is so difficult to manage it would be logical to direct more effort to prophylaxis. Clearly chronic pancreatitis will provide more work for surgeons in Britain13 unless we can find some way to curb the rising consumption of alcohol.

1 Sarles, H, Bibliotheca Gastroenterologica, 1965, No 7, VII.
6 Trapnell, J E, and Duncan, E H L, British Medical Journal, 1975, 2, 179.
7 James, G, Agnew, J E, and Bouchier, I A D, British Medical Journal, 1974, 2, 34.

Child health and environmental lead

Overt lead poisoning in childhood is uncommon in Britain, but, though the symptoms are variable and a high index of suspicion is needed on the part of the clinician, the diagnosis is usually clear.1 For lead poisoning to occur seems to require not only a source of lead but also that the child concerned should be at a specific developmental stage, and both the parent-child relationship and the presence of social and financial deprivation also seem relevant. Sources of lead in such cases include dirt, red lead in putty, and chips of lead paint; more recently lead-containing cosmetics such as surma2 and an imported baby tonic3 have been incriminated, especially in Asian immigrant communities. Much lead poisoning may be prevented by restricting the use of lead compounds in the home environment; but the problem remains of whether environmental lead—in air, dust, and water—produces subclinical lead poisoning and whether this can result in retardation of psychomotor development in the growing child.

Moncrieff et al4 drew attention to the frequent finding of raised blood lead concentrations in children with mental handicap, severe behaviour disorder, or pica, most of whom were not clinically poisoned. Since then a dispute has centered on the clinical significance (particularly in relation to mental handicap and behaviour disturbance) of blood lead concentrations below those proved to be toxic but nevertheless indicative of excessive exposure. Pollution of the environment by lead in air, dust, and water, has become a highly emotive
subject, for unfortunately methods of reducing environmental lead exposure are expensive.

A recent study of the mental capability of children exposed to lead pollution in Birmingham may help to clarify the issue. Eleven-plus examination scores for 851 children living since birth in a lead-polluted area were higher on average than those of 1642 children living in two similar, but unpolluted, areas of Birmingham. Moreover, within the polluted area those living closest to the source of pollution did not score lower than those living further away who attended the same schools. The results were not significantly affected by adjustment for social class, birthrank, and maternal age distributions. The study may be criticised for lack of information on blood lead levels and for the assumption that pollution in the area has not changed in the last two decades; but, nevertheless, the findings support those of Lansdown et al, whose study of children living around a lead-producing factory in London showed no relation between blood lead concentrations (which were higher in those closest to the factory) and either IQ or behaviour disturbance in those of school age. Perhaps more important, those children who had spent their first two years living in the polluted area had on average higher IQs and a lower incidence of behaviour disturbance and hyperactivity than those who had moved into the area, suggesting that social factors play a more important part than lead in determining IQ and behaviour.

Similarly, a study by McNeil and Ptasnik of two carefully matched groups of children living near a lead smelter in El Paso, Texas, found no significant difference between those with higher blood lead concentrations and their controls with respect to intelligence, school performance, or hyperactivity. However, in another study of children living in the same area performance IQ was lower and finger-wrist tapping slower in children with raised lead concentrations, though full scale IQ, verbal IQ, behaviour, and hyperactivity scores were similar; in this case the sex and age distribution favoured the control group.

Clinical lead poisoning from water-borne lead in areas with soft acidic water has been described in adults, and a Glasgow study showed higher amounts of lead in the water in homes occupied during fetal life and infancy by children with mental handicap compared with controls from the same area. That study has been criticised, however, in respect of the matching of the control group for social class, maternal age and birth order, and geographical location. Moreover, the severity of mental handicap seemed to be out of proportion to the measured blood lead levels. A prospective study might resolve these difficulties.

Fears have also been expressed about airborne lead pollution from the use of tetraethyl lead in petrol. While raised blood lead concentrations have been shown in adults exposed to exhaust fumes there is at present no evidence of overexposure in children. The lead content of petrol has already been limited, but further planned reductions have had to be postponed on the grounds of economic cost.

Overall, the evidence suggests that environmental lead does not have a major effect on the intellectual or behavioural development of our children, but the possibility of minor effects or of subtle impairment of fine motor or perceptual skills cannot yet be excluded. The findings of reduced ALA dehydratase levels in the blood of children with modestly raised blood lead concentrations and a positive correlation between blood and brain enzyme levels in sucking rats suggest that any such rise should be avoided in infancy.

We should try to keep the matter in perspective. At present the main preventable causes of neurological handicap in children operate in the perinatal period, and measures aimed at perinatal prevention are likely to be more cost-effective than attempts to reduce environmental lead exposure. Yet further prospective studies of the effects of environmental lead are justified; but if they are to detect subtle differences they will need to be carefully controlled, particularly with respect to the variables of socioeconomic status, the level of parental care, and educational opportunity.

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**Voluntary Service Overseas**

Young doctors sometimes believe that their long undergraduate training and, on qualification, the immediate demands of resident appointments exclude them from some of the pleasures and opportunities of early adult life. Yet there are compensations: a medical training still provides an unrivalled opportunity for world travel, often combined with high job satisfaction. One organisation offering that combination is Voluntary Service Overseas, which has just launched a campaign for more medical and paramedical volunteers. VSO is run on a budget of £1 million a year, 80% of which comes from the Ministry of Overseas Development and the rest from voluntary donations. Volunteers are found jobs in developing countries for a two-year period. VSO pays for their training and fares and maintains their National Insurance and superannuation contributions while they are abroad. The overseas employer pays the local rate for the job and provides accommodation.

What sort of doctors (or nurses or midwives) are needed? They should be fit, energetic, and resilient; adaptable to changing conditions; tolerant of standards of behaviour or hygiene that differ from those in Europe; and—most important—they need practical skills and confidence in their professional competence. VSO has begun to publish a newsletter, *Medical Orbit*, which gives further information and accounts of the experiences of individuals who have worked for it. This is one stimulating alternative for any doctor tired of the frustrations of bureaucratic control and the medical problems of a Western life style.

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17. Lanset, 1976, 2, 941.

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**Medical Orbit**, and other information, is available from the Medical Development Officer, Voluntary Service Overseas, 14 Bishops Bridge Road, London W2 6AA; tel 01-262 2611.