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Down's syndrome: the answer

Up till now antenatal screening for Down's syndrome (the single most important cause of severe mental retardation in the developed world) has not been very effective. At first it relied simply on identifying the 5% or so of pregnant women of advanced maternal age and offering them diagnostic amniocentesis and a termination of pregnancy if the fetus's chromosomal analysis proved to be abnormal. At best, however, this method can detect only about 30% of affected pregnancies. Recently the addition of measurements of the serum concentrations of a fetoprotein and unconjugated oestriol have improved the efficiency of screening, but most cases still escape detection. On p 883 Wald et al present a method of screening maternal serum for Down's syndrome that can detect most cases (about 60%) while maintaining an amniocentesis rate of under 5%. It relies on using maternal age and measurements of α fetoprotein, unconjugated oestriol, and human chorionic gonadotrophin concentrations in combination on all pregnant women, the serum tests being done on a single blood sample that is routinely collected as part of normal antenatal care. Such screening will have a great effect in reducing the number of births of severely mentally retarded infants. (See also leading article on p 876.)

Detecting anxiety and depression in general medical settings

What questions are most useful for alerting the clinician to the presence of an anxiety state or a depressive illness? Which questions should be used to follow up the possibility? Depressed mood, for example, is not an especially reliable indicator of the presence of a depressive illness.

Goldberg *et al* (p 897) offer doctors working on general wards two short scales for anxiety and depression. The whole scale need be administered only if there are positive answers to the screening questions. High scores on either scale alert staff to the possibility of a diagnosable depressive illness or anxiety state, and preliminary guidance is offered on the interpretation of these scores. The scales would be useful for nonpsychiatrists carrying out clinical surveys or for medical students so that they develop an increased awareness of the common forms of mental disorder.

Who should be afraid of graft rejection?

In contrast with kidney transplantation, in heart transplantation the selection of donor and recipient is not based on HLA matching. The reason is that a donor heart has to be transplanted so quickly that usually it is impossible to type and match. Even in kidney transplantation the importance of HLA matching has become controversial since the introduction of cyclosporin. At p 888 Hendriks *et al* report an analysis of renal transplant recipients treated with cyclosporin. Their results confirm that male patients with non-O

blood types who receive grafts poorly matched for HLA antigens are at high risk of graft failure. They also found in their patients given heart transplants that acute rejection episodes were more frequent in male recipients with non-O blood than in those with blood group O. As most candidates for heart transplantation are male and of non-O blood type and HLA-DR matching seems to reduce their incidence of acute rejection episodes, the findings underscore the need for an exchange of donor hearts—though this may need to await better methods of long term storage.

Do patients know best?

Doctors, pharmacists, and drug manufacturers continue to debate the best way of detecting and monitoring adverse reactions to new drugs. As it is patients who experience these reactions it might seem reasonable to recruit them into the monitoring process. But how good are patients at recognising adverse drug reactions? On p 891 Mitchell et al show that when patients prescribed antibiotics were asked to report what they believed to be adverse reactions to the drugs their views agreed poorly with the views of an expert panel. In particular, few patients attributed rashes and diarrhoea to their treatment. The most likely explanation is that patients had been poorly informed by doctors and pharmacists about which adverse reactions to expect and so had failed to identify them. Mitchell et al argue that this does not mean that reports from patients are of no value in monitoring adverse drug reactions; they were able to show that patients could complete forms which enabled them to report clinical events comprehensively. They conclude that a large surveillance system based on the responses of the public, using computer readable forms, might provide an effective early warning system.

Diagnosing dementia

Few studies have ever been published about the neuropathology of dementia in the aged, and the one on p 894 by Homer et al provides food for thought. Alzheimer's disease is said to be common in old age, but the study from the combined department of geriatric medicine and psychiatry for the elderly at St George's Hospital suggests that multi-infarct dementia may be equally common. A detailed assessment of 27 patients during life was compared with the pathologist's diagnosis after death. The two assessments disagreed in 11 of the 27. Using strict criteria, Professor Lantos and his team from the Institute of Psychiatry concluded that only seven of the 27 had substantial changes due to Alzheimer's disease; in 17 there were changes associated with multiple infarcts. The research team missed the diagnosis in a case of pseudodementia and in another of a rare encephalopathy. The rarity can be forgiven, but clinicians who too easily diagnose the cause of dementia should be worried by the patient who had a normal brain at necropsy. The authors ask, reasonably enough: If with their skills and facilities they can misclassify patients how often may other clinicians be equally fallible?