When should patients be referred for liver transplantation?

Liver transplantation is being used increasingly for patients with liver disease. In Europe in 1982 fewer than 100 transplants were performed, whereas in 1986 the number was about 450, 130 of them in Britain. The results are such that even two years ago Starzl, the pioneer of the procedure, was quoting actuarial five year survival rates of over 60%. But, though the indications are now well recognised, the problem remains as to when liver transplantation should be done.

Three years ago a National Institutes of Health consensus conference concluded that "an ideally timed transplantation procedure would be in a late enough phase of the disease to offer the patient no opportunity for spontaneous stabilisation or recovery, but in an early enough phase to give the surgical procedure a fair chance of success." Liver transplantation is usually performed when the prognosis, with conventional treatment, is one year of life or when the symptoms are intolerable. Nevertheless, inherent in the consensus conference's statement is the unproved assumption that both the prognostic factors for survival and the factors that adversely affect surgery can be identified for the individual patient. What guidance, therefore, can we give the physician on when adults should be referred to a transplant centre?

The absolute contraindications to transplantation are few and easy to identify: advanced cardiac and pulmonary disease, active biliary sepsis, continued excess alcohol consumption, and, for almost all centres, extrapulmonary spread of primary liver tumour or the presence of metastases in the liver. Less clear cut is age since many centres have done successful transplants in patients over 60. Preoperative upper abdominal surgery is often considered a relative contraindication; although, especially when portal hypertension is present, admissions do add considerably to the difficulties, no study has shown that previous laparotomy adversely affects survival. The presence of a blocked portal vein is no longer considered to be an indication to grafting. In patients with replicating hepatitis B virus the virus will probably infect the graft, but even if this occurs the quality of life after surgery may be excellent for some years. (The advent of newer techniques to prevent reinfection or treat chronic infection may make this less of a problem.) Evidence that the non-A non-B viruses affect the grafted liver is conflicting. Those causes of fulminant hepatic failure associated with a poor prognosis (such as non-A non-B viral hepatitis, fulminant Budd-Chiari syndrome, or drug sensitivity) are now further indications for transplantation. Potential candidates must be transferred to the transplant unit early: not only is there a short time span between the certainty that the prognosis is poor without transplantation and the onset of irreversible neurological damage, but also transferring a patient with encephalopathy carries increased risk of cerebral oedema and irreversible cerebral damage. Patients with hepatic malignancy should be referred for transplantation as soon as the presence of a non-resectable primary liver tumour confined to the liver is established. (It is appreciated that preoperative imaging will miss a proportion of extrapulmonary metastases and that recurrence of the disease remains a considerable problem.) Diagnostic biopsy of the tumour carries the potential risk of dissemination, but the need to confirm that the tumour is both malignant and primary usually outweighs these risks.

In patients with chronic parenchymal disease assessment of prognosis remains a problem. Prognostic models have been developed for both primary biliary cirrhosis and chronic active hepatitis, but, though these have been validated for populations, they are of less value for the individual. As the disease progresses nutrition becomes increasingly poor and poses an added risk. Given that rapid correction carries the risk of myeloinolysis, hypotension adds another risk to the procedure. A raised serum creatinine concentration has been suggested as a risk factor, but whether preoperative correction by, for example, dialysis improves the risk is to be shown.

Even if risk factors could be readily estimated, however, ethical considerations demand that patients with a limited prognosis without transplantation should not be denied operation merely because they are bad risks. As soon as a liver transplant becomes a possibility, therefore, they should be referred to a transplant centre. Not only can the patients be assessed by the physicians, surgeons, anaesthetists, nurses, and the other supporting staff concerned but they can also assess the liver transplant centre and discuss the procedure and its long term sequel for patients who have undergone it. If the transplant team consider that a patient is referred too early, then he or she should be followed up by the referring physician, possibly with occasional reassessment at the transplant centre.

Optimum management of the potential candidates demands close liaison between the local hospital and the transplant unit. Confidence must exist between both parties: confidence by the referring physician that his patient will not be precipitated too early into hazardous surgery and confidence by the transplant team that it will not be called on to perform "miracles" in moribund patients.

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Migration and health

Over the past 30 years at least 15 million people have migrated to northern Europe to help meet the labour demand of expanding national economies. Whereas Britain mainly recruited from her former colonies—initially the West Indies, then the Indian subcontinent—other countries, most notably Germany and France—attracted "guest workers" from southern Europe and north Africa. Given that these migrations have been among the most important demographic events of modern times, surprisingly little attention has been paid to the implications for health care.

Perceptions of the subject vary: the host populations, fuelled by reports of a high incidence of tuberculosis among migrants, have been concerned about risks to their own health; for health care providers the principal issue has been the inability of some migrants to speak the language of the host nation; and for migrants the main concern has been the failure, as they see it, of health services to recognise their needs and respond. Perhaps not surprisingly, the limited amount of research carried out largely reflects the concerns of the host population and its health care practitioners, as a recent World Health Organisation publication makes clear. Most studies have adopted a medical model in which health problems are viewed solely in terms of discrete diseases while the effect of migration is seen in terms of the creation of another social dimension, ethnicity, by which society can conveniently be stratified by epidemiologic methods. As a result, research has been oriented to the "ethnic" diseases, such as rickets, despite the minor importance that many immigrants ascribe to them. Interestingly the commonest ethnic disease in the United Kingdom—cystic fibrosis—is rarely if ever viewed as such. Of far greater importance to migrants, suggest the contributors to the WHO report, is their doctors' lack of understanding of their culture. Without this, it is claimed, many illnesses are incurable. The report therefore calls for change in three interrelated aspects: the understanding of migrants' health needs; the attitude of health care providers; and the orientation of research.

The health needs of minority ethnic groups differ in degree rather than in kind from those of the indigenous population. Heart disease, cancer, mental illness, and physical disabilities are the major health problems of minority and majority ethnic groups alike. Where morbidity and mortality rates are higher in minority groups (though the lack of routinely collected data means that little information on this aspect is available) policy makers must recognise the contribution not only of poor material circumstances, often exacerbated by discrimination, but also of the harm caused by the social dislocation of migration—uprooting, loss of identity, home-sickness, and the sense of belonging to an underclass.

Apart from being aware of such factors what more can health care providers do? While the availability of interpreters can help overcome language barriers, cultural barriers will remain. The importance of cultural differences in illness behaviour, in the presentation of symptoms, and in the expectations of consultations has been recognised in psychiatry. Unfortunately this is not true of other branches of medicine. Failure to understand cultural differences may lead to frustration and irritation on the part of doctors, as "deviant" patients are referred from one specialist to another with no benefit. The patients, meanwhile, become increasingly despondent with the failure of Western medicine to help restore their health. One effect of this is to confirm the importance of folk healers within each ethnic group.

The need to adopt a pluralistic model of formal care is borne out by the requirement of research on this subject. Another is to acknowledge that many of the health problems peculiar to minority ethnic groups result from their encounter with another culture, that of the indigenous population. A greater understanding of such encounters, through social science research, would benefit both the providers and the users of health services.

While calling for more research into this subject, the WHO report is aware of the risks. Given that minority ethnic communities are highly visible in their host societies, great sensitivity is needed as any data produced may be misinterpreted and misused. One possible safeguard is to concern members of the community in setting the research agenda. Even the best intentioned work may backfire, however, and emphasising the importance of culture may lead to doctors ascribing all health problems and incomprehensible behaviour to cultural differences. In addition, recognition of culture can promote a stereotyped image of members of minority groups, who are in reality as heterogeneous as members of the majority ethnic group. But there again our knowledge of the latter is slight. 16

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