versity Medical Centre, Morgantown, and his colleagues there and elsewhere. Percutaneous liver biopsy caused transient bacteraemia in 12 out of 89 patients. The organisms isolated, only half of which were clearly intestinal (and three were pneumococci and thus clearly not), raise difficulties in interpretation. Blood cultures during sigmoidoscopy[6] yielded enterobacteria or enterococci in 19 out of 200 patients, of whom about equal numbers had and had not intestinal disease. It is thus to be concluded that minor injury by the instrument itself was the cause. Perhaps the most unexpected finding of all is the most recent—that bacteraemia may be occasioned by a barium enema.[7] This is not surprising when, as in the case reported by Richman *et al.*,[8] the patient had acute leukaemia and ulcers in the colon. But in Le Frock's series, although 14 positive cultures were from 101 patients with bowel lesions of various kinds, including ulcerative colitis, regional ileitis, and carcinoma, 6 out of 54 were from patients with none. The method of administration of the enema is not described, except that "no air contrast enemas were performed." All cultures before its administration were negative, all were negative 30 minutes later, and "none of the patients . . . had any other detectable sign or symptom of bacteraemia."

It would be unwise to let these observations cause any serious alarm. According to the authors: "The results of this study suggest that a history of recent barium enema may be important in patients who have endocarditis." If the colon, like the urinary tract, were in these circumstances a source of Gram-negative septicaemia, it would be necessary to be on the alert to deal with this, but apparently it is not. Endocarditis is a most unlikely complication. The only species occurring in either bowel or urine which is anything but an exceedingly rare cause of endocarditis is the enterococcus (*Streptococcus faecalis*). It is no accident that so much endocarditis is coccal, and usually streptococcal. A short chain of these organisms is a rigid and immobile structure which if it lodges in a microscopic crevice in a deformed valve is likely to remain there. Most coliform bacilli, on the other hand, are single and motile, and hence far less likely to find permanent lodgement. *Bacteroides*, the most common bowel organisms, are strict anaerobes and incapable of initiating growth in an oxygenated environment. Patients with a history of rheumatic fever need antibiotic cover for an operation in the urinary tract liable to release enterococci into the circulation, but despite these interesting findings it will probably be felt that these diagnostic procedures in the colon need occasion no such anxiety.

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Renal Transplantation in Diabetes

Advanced diabetic neuropathy is a fatal disease. At this stage patients usually have multiple diabetic complications—proliferative retinopathy (many are blind), arterial disease, hypertension, and neuropathy, which may affect the autonomic innervation of the bladder and lead to urinary tract infection.[1] Some of them are too sick for any but the most conservative measures. Chronic dialysis programmes have proved unsatisfactory in comparison with those for non-diabetics:[2 3] not only is mortality high, but there is a tendency for neuropathy and perhaps retinopathy to deteriorate.[4 5] For these reasons many centres are unwilling to include these patients in their dialysis programmes. In contrast, relatively uncomplicated diabetics with glomerulonephritis or other forms of renal disease are usually suitable for long-term treatment and should be assessed more in terms of their renal disease than their diabetes.

A recent symposium in Minneapolis reviewed the management of diabetic end-stage renal disease. The results of renal transplantation were reported from several centres: this is now probably the most promising treatment, especially when live related donors are used.[6] Most experience has been obtained in Minneapolis itself, where of 63 patients there were at the time of the symposium 45 survivors of between 1 and 57 months, 43 of them with functioning kidneys. Survival was, however, less than for non-diabetics, and much poorer results obtained when cadaver kidneys were used. Urological complications after transplantation were commoner in diabetics, and a neurogenic bladder may be a lethal complication because of intractable urinary infection. Major arterial disease also bedevils the diabetic group, and myocardial infarction and strokes were much commoner causes of death than in non-diabetics.

Reversal of the remaining major diabetic complications does not usually occur after renal transplantation. The Minneapolis group believes that visual acuity which had been deteriorating before transplantation tended to stabilize or occasionally improve,[7] though the course of diabetic retinopathy is unpredictable even under more controlled conditions. An improvement of muscle power was observed in patients disabled from motor neuropathy,[7] and this is in keeping with other similar observations in non-diabetics. There was, however, no change in motor nerve conduction. Gastrointestinal symptoms generally improved, suggesting that they were mostly uraemic in origin. There is still no evidence that transplanted kidneys develop diabetic abnormalities; basement membrane thickening has been reported in the longest survivors, but it is not known whether this is a diabetic change or merely a consequence of transplantation.

With the certain knowledge that diabetics with impaired renal function from diabetic nephropathy will deteriorate and die within a short time[8] and with the impression that retinopathy probably advances more rapidly as renal failure advances, it may be argued[6] that transplantation should be performed earlier in diabetics, perhaps when serum creatinine levels are 500-700 μmol/l. Yet the treatment is still hazardous, and despite the considerable advances reported at the Minneapolis symposium the question still needs to be asked on every occasion whether it is justified to admit some of these patients to dialysis or transplant programmes.

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