Urinary Morbidity of Vesicoureteral Reflux Patients without Surgical Correction Prior to Renal Transplantation

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Dear Sir,

The evaluation of patients waiting for renal transplantation includes urethrocystography in order to discover the presence of vesicoureteral reflux (VUR) or other urological problems. So far, a frequent policy concerning reflux has been surgical correction or, more frequently, bilateral or unilateral nephroureterectomy before renal transplantation. These approaches were justified because theoretically immunosuppression can favour the occurrence of urinary-tract infection (UTI), pyelonephritis or bacteremia. Nevertheless, the above-mentioned surgical procedures prior to transplantation are associated with considerable morbidity [1] and the majority of teams have adopted a more conservative approach [2]. The urinary post-transplantation morbidity of reflux patients, however, is not well known.

We review the clinical records of patients diagnosed for reflux nephropathy who underwent renal transplantation without prior surgical correction or nephroureterectomy (group I). The aim of our study was to determine the post-transplantation urinary morbidity (incidence and recurrent (UTI) and bacteremia) in these patients compared with other groups: patients with polycystic renal disease (group II), in whom a high incidence of UTI should be expected, and patients with glomerulonephritis diagnosed by renal biopsy (group III), in whom a low incidence of UTI should be expected. UTI was diagnosed when more than 10⁵ colony-forming units were isolated. No patient of groups II and III showed VUR prior to transplantation. The reflux group included 13 patients, 9 men and 4 women, aged 20–46 years with a mean age of 30. Six of them (41.6%) had residual diuresis, excreting

Table I. Incidence and recurrent UTI and bacteremia after renal transplantation

less than 500 ml/day. None of them developed UTI throughout their course on haemodialysis (7–120 months, mean 48).

After transplantation the incidence and recurrence of UTI and the presence of bacteremia was compared with the other groups. The results are shown in table I. The incidence of UTI was similar in groups I and III, but patients of group II showed a higher incidence. Although

recurrent UTI (more than 3 episodes of infection) was more frequent in patients of group I, none of them developed bacteraemia. Remarkably, almost 60% of the VUR

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patients did not develop UTI during follow-up. These results demonstrate that the urinary post-transplantation morbidity of reflux patients represents a minor problem and that the incidence and recurrence of UTI is similar to that of non-reflux patients; it is even a low risk in the group with glomerular etiology.

Finally, our results suggest that pre-transplantation surgical correction or nephroureterectomy should not be performed routinely in VUR patients. Probably, pre-transplantation surgery should be restricted to patients who present with recurrent UTI or bacteremia while they are maintained on dialysis.

References

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