

ANALYSIS OF PATIENTS WITH BLADDER DYSFUNCTION AND RENAL TRANSPLANTATION: A SINGLE CENTER EXPERIENCE

Hypothesis / aims of study

Chronic kidney disease (CKD) is one of the most common causes of death in patients with dysfunctional bladder. Renal transplantation has demonstrated better results compared to hemodialysis with much more quality of life in patients with CKD. Patients with renal failure due to bladder dysfunction may have a reduced allograft survival and more urological problems due to their bladder characteristics. The aim of our study was to evaluate the outcomes depending on the approach of the bladder treatment of transplanted patients with neurogenic voiding dysfunction in a tertiary hospital.

Study design, materials and methods

We retrospectively revised renal transplants between 1990 and 2016. 16 cases were performed in patients with bladder dysfunction. The cause of urinary tract disorders included: myelomeningocele connected with neuropathic bladder (9 cases) and voiding dysfunction secondary to vesico-ureteral reflux in post tuberculosis micro bladder. We analyzed patient characteristics, urodynamic evaluation previous to renal transplant, surgical procedure complications and allograft survival. Two groups were performed depending on urinary diversion: orthotopic (bladder preservation) or heterotopic (ileal conduit).

Results

In 6 cases kidney transplantation was performed with classic ureteroneocystostomy into bladder. No acute complications were detected. In this group, urodynamic studies detected high pressure bladder with low compliance. 2 grafts developed hidronephrosis (1 needed ureteral catheterisation). Median graft survival was 6 years, and 4 kidneys are still functioning. In 10 patients we performed ileal conduit before kidney transplantation. In this group urodynamic studies detected detrusor hyperreflexia with dysfunctional voiding secondary to sphincter dysinergia. After kidney transplantation two severe complications were detected: 1 graft thrombosis with bricker necrosis and 1 graft loss due to hemorrhagic complications. Median graft survival was 8 years and in 6 patients graft survival was longer than 10 years.

Interpretation of results

In patients with sphincter dysinergia unable to do autocatheterisation or patients unsuitable for bladder augmentation, performing an ileal conduit can offer a valid alternative with good graft survival and an acceptable percentage of complications.

Concluding message

Potential transplant recipients must be classified according to pathophysiological and anatomical abnormalities of the urinary tract. This surgical management allows all these patients to be included as potential kidney transplant recipients.

Disclosures

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