

BLADDER DYSFUCTION IN CRONIC RENAL FAILURE PATIENTS WAITING SIMULTANEOUS KIDNEY-PANCREAS TRANSPLANTATION

Aims of Study

The kidney-pancreas transplantation constitutes a high risk therapeutic treatment (1,2, 3, 4). Survival is compromised mainly by cardiovascular events and diabetic complications. The viability of the transplanted kidney is complicated by the bladder dysfunctions normally occurring in diabetes mellitus and uremia. Herein, we analyze bladder behavior of patients on a waiting list for this double transplantation, looking for patterns and warnings to be followed in these cases.

Methods

Thirty five uremic and diabetic patients (18 men and 17 women), mean age 34 y.o. (23-58 y.o.) were submitted to videourodynamic examination comprising uroflowmetry, cystometry, EMG and pressure-flow studie by means of Aquarius Laborie poligraph. Thirty two patients were in hemodialysis (HD) and three in continuous ambulatory peritoneal dialysis (CAPD).

Results

94% of patients presented abnormal urodynamical findings. The bladder capacity was reduced (< 400ml) in 60% and increased (> 550ml) in 23% of the cases. Seven patients (20%) presented a low bladder compliance. A reduction in the bladder sensation was observed in 40% of patients. There was a detrusor voiding pressure impairment in 15 patients (43%), and a residual volume greater than 150 ml, in 11 patients (31%). Three patients were incapable to void during the exam.

Bladder Capacity

| | N. patients | (%) | Average age | Male | Female | Average capacity |
|------------|-------------|-----|-------------|------|--------|------------------|
| < 400 ml | 21 | 60 | 35,6 | 9 | 12 | 261 ml |
| 400-550 ml | 6 | 17 | 35,1 | 3 | 3 | 433 ml |
| > 550ml | 8 | 23 | 34,3 | 6 | 2 | 675 ml |

Conclusions

Patients in simultaneous kidney and pancreas transplantation program present a high index of urodynamic disorders, in accordance to diabetes neuropathy and longterm non-functional bladder. The exact dysfunction is non predictable. Urodynamic examination is essential in preoperative simultaneous kidney and pancreas transplantation, to identify and assess adequate urological treatment for these patients.

References

1. LaRocca, E, Fiorina P, Astorri,E, Rossetti C, Lucignani G, Fazio F, Giudici D, Castoldi R, Bianchi,G, Di Carlo V, Pozza G, Secchi,A - Patient survival and cardiovascular events after kidney-pancreas transplantation: comparison with kidney transplantation alone in uremic IDDM patients. Cell Transplant 2000Nov-Dec, 9(6): 929-32
2. Lin K, Stewart D, Cooper S, Davis, CL - Pre-transplant cardiac testing for kidney-pancreas transplantation candidates and association with cardiac outcomes -Clin Tranplant 2001Aug 15(4):269-75
3. Gilabert R, Fernandez-Cruz L, Real MI, Ricart MJ, Astudillo E, Montana X - Treatment and outcome of pancreatic venous graft thrombosis after kidney-pancreas transplantation - Br J Surg 2002 Mar, 89(3): 355-60
- Kuhr CS, Bakthavatsalam R, March, CL - Urologic aspects of kidney-pancreas transplantation - Urol Clin North Am 2001 Nv, 28(4):751-8