

Simultaneous pancreas-kidney transplantation for diabetic end-stage renal disease under a hypertension status

Sir,

Diabetic kidney disease is one of the most devastating complications affecting diabetic patients' survival. When suffering from both type 1 diabetes mellitus (DM) and end-stage renal disease (ESRD), simultaneous pancreas-kidney transplantation (SPKT) is the best therapeutic option and life-saving procedure.^[1] Hypertension is known to be a common comorbidity associated with DM. The incidence of hypertension is above 60%, in some regions even exceeding 75%, among patients with DM.^[2] Both hypertension and DM related closely to an increased risk of morbidity and mortality due to long-term macro- and microvascular pathological conditions, notably chronic kidney disease.^[3] Furthermore, 80-90% of patients at stages IV and V chronic kidney disease suffer from resistant hypertension.^[4] Therefore, hypertension may have a great impact on the long-term outcome after SPKT. Here, we present a case of SPKT patient who survived over 10 years without cardiovascular complications under effectively immunosuppressive and anti-hypertensive medication.

A 43-year-old man diagnosed as hypertension and type 1 DM with ESRD underwent SPKT at our hospital in December 2004. The body weight, body height, and body mass index of the patient were 171 cm, 62 kg, and 21.2 kg/m², respectively. He had been received hemodialysis therapy for 3 years. His blood glucose was unstable despite the treatment of oral drugs and insulin injection. His blood pressure was well-controlled under the combination of diuretic and calcium channel blockers. The systolic and diastolic blood pressure maintained <140/90 mmHg generally. No severe hypertension-related complications (e.g., heart failure, coronary artery disease, and aneurysm) or significant surgical contraindication was found before SPKT. Postoperative managements consisted of routine fluid replacement, infection prevention, and medication including somatostatin, low-dose heparin, acid inhibitor. Baseline immunosuppression consisted of a 3-day induction treatment with antithymocyte globulin with a delayed inception of tacrolimus, a steroid taper and mycophenolate mofetil. After the patient had been discharged, he continued to take a combination of diuretic and calcium channel blockers for antihypertension medication and self-examined daily blood pressure. The patient routinely followed up in the liver transplant outpatient clinic, and no complication

was found during the 10 years.

From what has been discussed above, strict pretransplant evaluation and selection criteria must be performed in SPKT candidates and effective management of hypertension is critical for improving recipients' long-term outcome and quality of life.

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Division of Hepatobiliary and Pancreatic Surgery, Department of Surgery, Lishui People's Hospital, Lishui, Zhejiang, P.R. China.

Conflicts of interest

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Shengqian Xu, Guanxiong Ye, Chengjun Wu, Yong Qin, Shi Wang, Debiao Pan

Department of Surgery, Division of Hepatobiliary and Pancreatic Surgery, Lishui People's Hospital, Lishui, Zhejiang, P. R. China

Address for correspondence: Prof. Guanxiong Ye, Department of Surgery, Division of Hepatobiliary and Pancreatic Surgery, Lishui People's Hospital, Lishui, Zhejiang, P. R. China.

E-mail: guanxiongye@163.com

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