Reconstruction of multiple renal arteries during simultaneous pancreas and kidney transplantation: A case report

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Since 2004, there has been 200 pancreas transplantations performed at our clinic. SPK requires a vast experience in vascular surgery and microsurgery. In pancreas transplantation, it is necessary to create a common vascular trunk from: common iliac artery, spleen artery and celiac trunk, as well as to reconstruct portal vein with common iliac vein. At our center the most often vessel anastomosis is between reconstructed graft vessels and right external iliac artery and left common iliac vein of the recipient. During transplantation, we usually perform four arterial anastomoses and three venous. We demonstrate a case of SPK transplantation in which the kidney graft had two renal veins and six renal arteries. The recipient was male, aged 32, with diabetes diagnosed 25 years ago and renal replacement therapy from 2013. The donor organs required more anastomoses than in routine. We performed SPK transplantation. In the first step, we reconstructed renal vessels. The donor’s aorta patch had 10 cm and had six renal arteries ostia. We divided arteries’ patches and performed five side-to-side anastomoses, reconstructing the arterial patch. The renal veins reconstruction was done by creating a common trunk. In control ultrasonography the grafted kidney had regular and rich blood supply. The patient had proper renal and pancreas function, also after one year. Anatomy anomalies should not be contradiction for transplantation. The surgeon should consider that each additional vessel can be equivalent. Transplantation with multi vessels is challenging for the surgeons and is a test for knowledge and microsurgical abilities.

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