Indications

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The indications for pancreas transplant can be split into those for patients with concomitant renal failure and those without. SPK is the most frequently performed procedure for patients with type 1 diabetes and renal failure due to diabetic nephropathy . There is a small population of patients with type 1 diabetes with renal failure due to primary renal disease or non-diabetic causes and they are also included in this group. The organs are almost exclusively from the same deceased donor, although there are rare examples of organs from living donors (LDs); however, LD pancreas transplantation has not been widely accepted and carries significant risk to the donor. In patients with type 1 diabetes and the option of an LD kidney the possibilities are to undergo an LD kidney transplan tation followed by either a PAK or an SPK. The decision is not clear-cut: although pancreas graft survival was historically superior in SPK, P AK results have improved over recent years and the outcomes of the two procedures are now similar. If the patient presents late and has already accrued time on dialysis, the high morbidity and mortality associated with dialysis (30% mortality at 5 years) renders LD kidney transplantation fol lowed by PAK somewhat more desirable. The policy regarding SPK or LD kidney transplantation followed by PAK is depen dent on many factors, particular ly the expected waiting time for an SPK. SPK indications as defined by the NHS Blood and Transplant Pancreatic Advisory Group (NHSBT PAG) Paul Langerhans , 1847–1888, German pathologist, physiologist and biologist credited with the discovery of the ‘islets of Langerhans’, the cells that secrete insulin in the pancreas. dialysis or dialysis predicted within 6 months (glomerular filtra tion rate [GFR] <20 /uni00A0 mL/min). P atients with type . 1 diabetes without renal failure but with life-threatening hypoglycaemic unawar eness are potential candidates of solid organ PTA or islet transplantation. The annual mortality rate of patients with insulin-induced hypoglycaemic unawareness is estimated to be between 3% and 6% – a major risk for this group of typically young patients. In patients with early diabetic nephropathy the risk of repeated acute kidney injury (AKI) needs to be considered prior to PTA to minimise the chance of accelerating renal failure, and a baseline GFR of 2 80–100 /uni00A0 mL/min/1.73m means the patient is unlikely to need a kidney transplant. Patients with type 2 diabetes can also be considered for SPK, although after careful selection: many obese patients with type 2 diabetes are better managed with diet and/ - or bariatric surgery . Suitable candidates are non-morbidly obese patients, typically with insulin requirements of less than <1 /uni00A0 unit/kg body /uni00A0 weight in 24 hours (to exclude patients with ut insulin resistance). When selected in this way , the results of - SPK in these patients are similar to those in patients with type 1 diabetes. -

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