

Letters to the editor

Pancreas transplantation: do patients benefit?

Dear Sir,

In the May issue of *Diabetologia* Prof. P. Lefèbvre reviewed the questions 'why', 'when' and 'who' should receive a pancreas transplant [1]. We fully agree with many of his arguments but we have some reservations regarding his final conclusions. In fact, we would suggest a negative answer to the question as to whether the benefit-risk-ratio would at present justify pancreas transplantation in diabetic patients, because the benefit-risk-ratio has not yet been determined by controlled randomized studies [2]. Available evidence from cross-sectional observations [1] and from one recent case control study [3] indicates that patients with a combined pancreas-kidney transplant have no benefit in terms of longevity, progress of diabetic complications and morbidity as compared to patients with kidney transplants only. In fact, mortality in patients older than 45 years appears to be higher after pancreas transplantation [3]. What other arguments could possibly justify a pancreas transplantation in addition to a kidney graft without a firm prospect on its long-term function at the cost of increased hospital admissions and transplant-related complications [4]? Those who support and perform pancreas transplantation will answer immediately: "Improved quality of life". We appreciate that one or another diabetic patient may experience a better quality of life after a successful combined pancreas-kidney transplant and cross-sectional studies [4–7] support such an assumption. However, the evidence that pancreas transplantation assures an improved quality of life for the diabetic patient is lacking. To provide a valid answer to this question, we need a prospective long-term follow-up study investigating quality of life in patients prior to and after transplantation of a kidney alone or in combination with a pancreas transplant. Such a study would most likely unmask the impact of surgery and its complications vis-à-vis the daily inconvenience of blood glucose measurements and insulin injections.

Thus, in the absence of any evidence at the present time that diabetic patients profit from pancreas transplantation, we conclude [8]: 1. In diabetic patients who do not require a kidney transplant, pancreas transplantation is associated with the risk of the surgical procedure plus the subsequent immunosuppressive therapy. As it has not been proven and is more than doubtful that these risks will be outweighed by a hypothetical reduction in morbidity and mortality, pancreas transplantation in these patients is not justified. 2. In diabetic patients with end-stage renal failure, pancreas transplantation together with a kidney or after successful kidney transplantation should be performed only in an investigational setting under the following conditions. First, for the sake of the patients and referring

physicians, every centre performing combined pancreas-kidney transplantation should make its raw data on morbidity and mortality related to the different surgical procedures used available to the public. Second, after many years of experimental work and much improvement of technical aspects and patient and graft survival, a controlled, prospective (not necessarily randomized) study to determine the impact of pancreas transplantation on longevity, diabetic complications, morbidity and quality of life as compared to patients who receive a kidney transplant only, must definitely be instigated. Without such information any further discussion on the potential benefit(s) of pancreas transplantation is futile.

Yours sincerely,

F. W. Kemmer, M. Berger and B. Grabensee

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Response from the author

Dear Sir,

My review entitled "Pancreatic transplantation: why, when and who?" [1] has been published in the "For debate" section of *Diabetologia*. In that respect, the letter of Kemmer and Grabensee is more than welcome. In my conclusion, I attempted to make it clear that transplantation of isolated islets, Beta-cell transplants or bioartificial devices will likely ensure better replacement therapy, with less risk, than pancreatic transplantation, as soon as they become more widely available. Such a view is supported by the recently reported remarkable observation of preserved insulin secretion and insulin independence in recipients of intrahepatic islet autografts [2]. Kemmer and Grabensee feel that in the patient who does not require a kidney transplant, pancreas transplantation is *not* justified. My view was that it should only be done on an investigational, far from routine, basis. However, at our Institution, we have, like others, abandoned this indication. Thus, we do what Kemmer and Grabensee recommend i. e. we do *not* ask for our patients to undergo solitary pancreas transplantation.

We probably have a slightly different view concerning the patients with end-stage diabetic nephropathy, where we consider that simultaneous kidney and pancreas transplantation should a priori be considered. Here, the published literature, the Registry and our own, albeit limited, experience all concur to indicate that most patients benefit from such a combined transplantation procedure. I cannot but agree with the double requirement of Kemmer and Grabensee that, first, all raw data from all centres should be made available to the public (one can only regret that as few as 40 to 60 % of all transplantations performed are reported to the Registry) and,

second, that the long-requested [3, 4] controlled prospective study they mention should finally be instigated. With 48 centres performing pancreas transplantation in Europe by now, would not this prospective study be a superb project to be supported and funded by the European Community? Transplanters of the world unite!

Yours sincerely,
P.J. Lefèbvre

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