

### Cover Letter:

Pancreas transplantation is the only method that allows long-term normalization of hydrocarbon metabolism in diabetic patients. In selected patients offers 95% patient survival and 90% graft survival per year, similar to other solid organ transplants. However, in spite of the good results of the transplant, the surgical complications are responsible for a rate of reoperations, over 30%, and the loss of grafts in more than 10% of cases. These complications are related to each of the stages of the transplant, from the selection of donors and recipients, the surgical technique, the postoperative period and the problems related to immunosuppression and long term follow up. There are two peaks in mortality from pancreas transplantation. Immediate, in the postoperative period, or short term, they are due to infections and surgical complications, since this is the period where surgery coincides with high doses of medication. Regarding morbidity, a scrupulous surgical technique is crucial to decrease the rate of complications. Among these the most important are vascular complications, duodenal or duodeno-vesical fistulas, hemorrhage and hematuria, and especially abdominal and systemic infections. Therefore, in this review carried out by the Spanish Group of Pancreas Transplantation (GETP), we want to analyze the different risk factors that occur in each of the stages in order to prevent such complications.

### COMMENTS AND REPLIES (in red)

This is an interesting and useful article – relevant to all clinicians involved in pancreas transplantation and organ retrieval for transplantation. It is well written.

- Thank you very much for this general consideration. We are very flattered by your comments.

There are several comments that require addressing prior to proceeding further with publication. Comments:

1) The authors allude to the necessity of accurate and pristine benchwork as being cornerstone for the prevention of graft thrombosis and pancreatitis – can the authors provide any literature references that support this idea.

Thank you for your comment. References 3 and 5 have been added. These references are relative to pancreatitis and graft thrombosis based on bench work, respectively.

2) editing by the Journal of syntax would be beneficial to the flow of the article.

Section A: 3) In the UK – the NHS Blood and Transplant and the National Organ Retrieval Service recommends the use of 3 Bowel bags to store and transport organs on ice. Are there any national guidelines in the authors country? Mentioning National practice or Organizational guidelines/advice may be useful and place this advice in context.

There is no recommendation for this practice in Spain, but in my usual practice I use triple bag, taking extreme care to avoid direct contact of ice with the pancreatic graft. Your recommendation has been added to the text. Thank you very much

4) What are the authors opinion on the use of surgical magnified glasses or 'loupes' to aid in visualisation of small pancreatic vasculature structures etc?

We use surgical magnifying glasses to perform vascular anastomoses and for the preparation of arterial grafts in bench work. We highly recommend its use. We have added this comment to the text. Very thankful

5) Instead of ice (frozen water) - thought may be give to frozen saline or hartmanns' (can be broken with a sterile hammer while in the bag and then used to make slush).

I agree with this comment and it has been added

6) A Watson and Cheyne probe is sometimes useful – as it is blunt and less liable to injury vessels.

You are right. I usually manage arteries and iliac grafts with these probes. This comment has been included. Thank you

Section B 7) Section of the bowel is commonly done with a stapler (double layer or triple layer – e.g. TLC 75) and the oversewn – do the authors have any specific opinion on this technique?

In my initial experience, I usually used a double layer stapler, oversewn with silk suture. Currently, I use triple layer stapler without oversewn. I have added a comment in the main text.

8) Do the authors suggest any attention should be paid to the peripancreatic fat along pancreas from the head toward the body and tail peripherally – in particular clearance of this fat and also ligation of small vessels. This is commonly practiced and also mentioned in several surgical textbooks for example. This is not mentioned in the article.

You are right. This is our common practice. We have added your comment.

Section G 9) Mention of machine perfusion to preserve pancreases is novel and interesting. Though it has been only discussed up to know experimentally and not in clinical practice. Can the authors provide any references to the development of these techniques?

I have added a brief mention on this matter at the end. Thank you