

[1535] Pancreas Transplantation Using HTK Preservative Solution: Is It a Cautionary Tale?

Kunam S. Reddy, Adyr Moss, Kristin Mekeel, Marek Mazur, Heilman Raymond, Chakkerla Harini, Khalid Hamawi, Yugandhara Devarapalli, David Mulligan Transplantation Surgery and Medicine, Mayo Clinic Arizona, Phoenix, AZ

A recent single center experience in a small cohort of patients demonstrating an increased incidence of pancreatitis in HTK preserved group compared to UW preservation and UNOS registry data showing inferior pancreas graft survival in the HTK group prompted us to review our experience with pancreas transplantation (PTX) comparing the two groups.

We performed 115 PTXs (87 simultaneous kidney PTX (SKPTs) and 28 solitary PTXs (SPTs)) in 114 patients between July 2003 and September 2008. One patient who received a SKPT with organs perfused with HTK and preserved in UW solution was excluded leaving 114 PTX (75 HTK group; 39 UW group) for analysis. The amount of solution used for perfusion was – UW 2 liters aortic flush and 1 liter portal flush and HTK 3 liters aortic flush and 2 liters portal flush. We looked at the following end points in the two groups; peak amylase and lipase, kidney and pancreas graft survival at 1 month and 1 year. In addition we looked into the risk factors for pancreas graft loss.

Patient and transplant characteristics in the 2 groups are shown in Table 1.

Patient and transplant characteristics in HTK vs UW group

	HTK (n=75)	UW (n=39)	P value
SKPT/SPT	91%/ 9%	46%/ 54%	0.0001
Previous Tx (KP group only)	9%	0%	NS
+ve CDC B or flow crossmatch	19%	5%	0.0524
Peak PRA >50	15%	3%	0.0524
Cold ischemia time (CIT) (mean ±SD)	8.9 ±3.0	11.3 ± 3.8	NS
CIT ≥12 hrs	13%	41%	0.0018
CIT ≥ 15 hrs	4%	15%	NS
Donor age ≥ 45	11%	0%	0.0493
Donor BMI ≥ 30	11%	0%	0.0493

Outcomes in the 2 groups are shown in Table 2.

outcomes in HTK vs UW group

	HTK (n=75)	UW (n=39)	P value
Peak amylase (mean ±SD)	430 ± 455	385 ± 378	NS
Peak lipase (mean±SD)	382 ± 408	255 ± 268	0.0424
30 day P graft survival	93%	95%	NS
1yr actual P graft survival (for pts with 1 yr FU)	89%	85%	NS
1 yr actual K graft survival (for pts with 1 yr FU)	95%	100%	NS

Risk factors for pancreas graft loss at 1 year were recipient age ≥ 50 and recipient BMI ≥ 30.

Conclusion: There is no difference in the peak amylase levels, kidney and pancreas graft survival rates between HTK and UW preservative solutions in PTX recipients with cold ischemia times upto 15 hrs. Peak lipase was higher in the HTK group.

Keywords: Pancreas transplantation; Preservation solutions; Pancreatitis

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Poster Session: Pancreas Transplantation II (5:30 PM-6:30 PM)

Room: Exhibit Hall C

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