



www.custodiol.ca

CUSTODIOL®

HTK Solution



The Cold Standard

"Learn from yesterday, live for today, hope for tomorrow." - Anon.

Volume 2, Issue 1

March 3, 2008

Biliary complications following liver transplantation

Biliary complications continue to add morbidity and financial burden to liver transplantation. The majority of these complications are related to the biliary anastomosis, with some centres noting complication rates of 10%-30%. Encouraging results have, however, been achieved through the use of stents and low viscosity preservation solutions like CUSTODIOL® HTK. A recent retrospective study by Welling et al., out of the University of Michigan, reviewed the outcomes of 256 liver

transplants (HTK n = 141, UW n = 115) and found some interesting trends. The following is directly quoted from the study: "Use of HTK appeared to be protective against a stricture (OR 0.48, CI 0.26-0.86, P 0.014) and use of HTK instead of UW preservation solution was associated with a lower incidence of anastomotic stricture, with 17.0% for HTK and 30.2% for UW (P 0.023)." Welling concluded that based on this data, the routine use of HTK may serve to lower the risk of anastomotic stricture in liver transplantation.



CUSTODIOL® HTK: The solution of Choice for Canadian transplant professionals

Using Livers from Donation After Cardiac Death Donors —A Proposal To Protect the True Achilles Heel

Ischemic type biliary stricture (ITBS) appears to be disproportionately higher in DCD liver transplantation. This recent editorial in the January issue of Liver Transplantation by Dr. John Fung of the Cleveland Clinic, examines current approaches to DCD Liver transplantation and proposes a new way to tackle ITBS. The solution lies with the viscosity of the preservation solution used to flush blood elements from the microvasculature of the liver and Dr. Fung notes that "flow through a vessel is inversely related to the viscosity of the solution". He goes on to say that "the more viscous UW solution is less likely to penetrate and adequately flush the biliary plexus, potentiating the risk of ischemic-type biliary stricture (ITBS) development". Dr. Fung

concludes that crystalloid-based preservation solutions (like HTK), combined with thrombolytic agents may lead to better outcomes by enhancing microcirculatory integrity and reducing the risk of ITBS. As per the editorial, the Cleveland Clinic developed and is currently using the protocol of administering 50 mg of recombinant tissue plasminogen activator (rTPA) along with 30,000 units of heparin systemically, and preferably in situ before declaration of death, followed by preservation flush with HTK. During the Cleveland Clinic's initial use of this protocol involving 12 DCD livers there were no cases of ITBS. Photos of the two scans below show the patency of the biliary plexus following the use of HTK and UW solution.

Transplantation Meeting And Event Calendar

May 31-June 4, 2008

2008 American Transplant Congress

Metro Toronto Convention Centre
Toronto, Ontario

www.astso.org

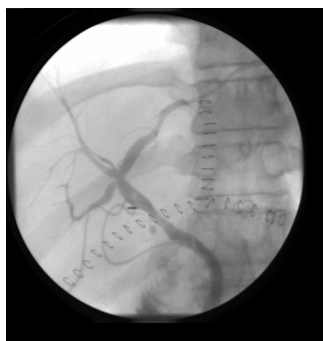
August 5 - 10, 2008

4th Canadian Transplant Games

Windsor, Ontario

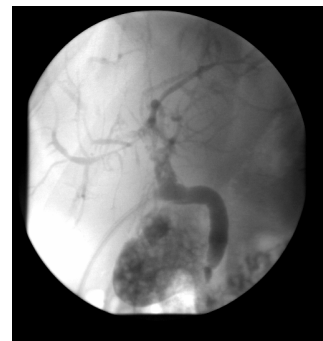
<http://ctawindsor.org/>

HTK



HTK flushed biliary tree from DCD Liver. Note the clear blood flow in re-perfused liver under fluoroscopy.

UW



UW flushed Biliary tree. Note: Thrombosed biliary tree of UW re-perfused DCD liver under fluoroscopy

Photo courtesy of Dr. John Fung