Conclusion: High basal level of tissue damage in PCIS in the control animals undergoing DBD and VP does not seem to reflect the current standard practice in intestinal transplantation. Thus, this model needs optimization before additional effects of LP and PCIS as in vitro model for IRI can be evaluated.

References:
1. Oltean M et al. Organ-specific solutions and strategies for the intestinal preservation. *Int Rev Immunol*. 2014, 33(3):234–244.
2. Oltean M et al. Luminal solutions protect mucosal barrier during extended preservation. *J Surg Res*. 2015, 194(1):289–296.
3. Oltean M et al. Intra-luminal polyethylene glycol stabilizes tight junctions and improves intestinal preservation in the rat. *Am J Transplant*. 12(8):2044–2051.
4. Roskott AM et al. Reduced ischemia-reoxygenation injury in rat intestine after luminal preservation with a tailored solution. *Transplantation*. 2010, 90(6):622–629.
p<0.001 vs. isogenic control) 90 min post treatment. On the other hand, glucose curves were normal with a rise from basal to 240 +/-32 mg/dL at 60 min post-treatment in non-IT controls as well as in isogenic HIT recipients (p<0.001 vs allogenic group). Furthermore, OVA was undetectable in any serum sample from control groups.

This result indicate that even in early stages of ACR, there is an impairment of barrier function that is evidenced by passage of non-degraded proteins from intestinal lumen to blood. Furthermore, there is impairment on glucose absorptive capacity, even from the initial stages of rejection diagnosed by clinical and histological evaluations.

The evaluation of these graft functional features could provide additional tools for rejection diagnosis in the clinics.

Normal microscopic (A) and macroscopic (B) graft appearance 10 days after syngeneic HIT. Microscopic (C and E) and macroscopic appearance of the transplanted intestine compatible with ACR in allogeneic group.

1a.107
Native Spleen Removal and Modified Multivisceral Transplantation in Rats
Pablo Stringa, Manuel Gómez, Ane Miren Andrés, Alba Sánchez, José Luis Encinas, Carlos De La Torre, Manuel Gámez, Manuel López-Santamaría, Francisco Hernández
Pediatric Surgery, La Paz University Hospital, Madrid, Spain.

Aim: Various techniques and several modifications have been described for experimental intestinal transplantation. Modified multivisceral (MMV) graft offers the advantage of including all abdominal viscera with the corresponding immunologic load without the potential liver inclusion benefits. Our aim was to describe some technical modifications of MMV transplantation in rats with the addition of native splenectomy.

Methods: Heterotopic syngeneic (Lewis-Lewis) MMV transplantations were performed in 5 pair of rats. Average weight of donors and recipients was 198±10g and 250±14g respectively. Animals were operated under isoflurane inhalation anesthesia. Each graft consisted of the distal half of the stomach, duodenum, pancreas, spleen and the small bowel of the donor. The graft spleen was removed in the back table in two of them. Native intestine was preserved, avoiding the need of biliary reconstruction. The native spleen was removed. The vascular pedicle consisted of the celiac trunk and superior mesenteric artery with a cuff of aorta and the portal vein. Cold (4°C) Ringer's solution with heparin (10 units/ml) was used to perfuse the vessels and irrigate the intestinal lumen. Venous outflow of the graft was reestablished first with end-to-side anastomoses between graft portal vein and recipient vena cava. Arterial revascularization was achieved by end-to-side arterial anastomoses between the cuff of the donor aorta and the recipient infrarenal aorta.

Results: 4/5 recipients survived more than 1h after the procedure. One died due to arterial bleeding. All grafts showed adequate initial reperfusion, one showed mild congestion due to portal estenosis. Donor and recipient time were 37±7.7 min and 66.6±3.8 min respectively; venous anastomosis time was 14±3 min and arterial anastomosis time was 12±1 min.

Conclusions: MMV offers an excellent experimental model. The lymphoid load can be modified with the inclusion of the graft spleen, and the removal of the native spleen is an original modification that improves the interest of this model for GVHD and other immunological studies.

Reference:
1. Galvao F, et al. Transplant. 2013; 96 (2):e4-5.