

Recipient: There is normally no alteration from typical DDLT management. Most centers in the US selectively place a pulmonary artery catheter (PAC) while routinely use transesophageal echocardiography (TEE). LDLT recipients are routinely extubated in the operation room.

Donor: Anesthesiologists participate in donor selection and pre-operative evaluation; they utilize enhanced recovery after surgery (ERAS) protocols and regional anesthesia techniques. Most centers do not routinely utilize pre-operative autologous blood donation or intraoperative acute normovolemic hemodilution.

Conclusions: With the expansion of LDLT as an alternative to DDLT, we must continue to understand variations in practice patterns to ultimately develop best practice guidelines. Reviewing these survey results is the first step into understanding perioperative management for this unique patient group.

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Abstract# D272

The Liver Regenerative Effect of Substance P After Major Hepatectomy in Rat Models.

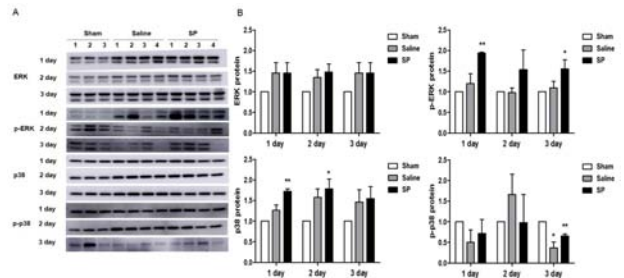
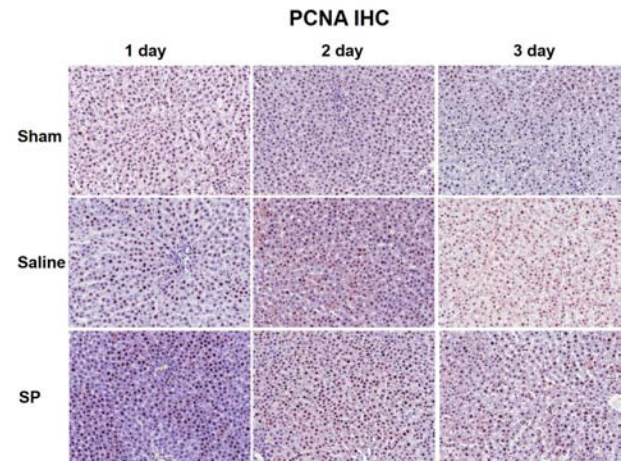
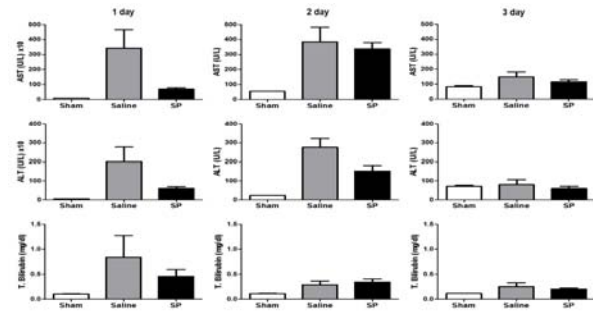
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Purpose: The hepatic damages are inevitable under liver surgery. Therefore, post-hepatectomy liver failure remains one of the most dangerous and lifethreatening complications of hepatectomy. The outcome of liver surgery can be improved by increasing liver regeneration. Substance P has a healing effect on damaged tissues. In this study, we investigated the effect of substance P on regeneration after liver resection (LR) in rat.

Methods: SD rats aged 8 weeks were used. Animals were divided into three groups: Sham (n = 5); Control (n = 5, injected with saline after LR); SP (n = 5, injected with SP after LR). Liver resection was performed with 70% hepatectomy. The liver regeneration effect of SP was assessed by PCNA, CD133, phosphorylated mTOR, Akt, ERK, and p38.

Results: In the Sham, Saline and SP groups, the aspartate transaminase were 83.75 ± 7.14, 3417.23 ± 2148.34 and 687.62 ± 219.48, and alanine transferase were 52.25 ± 6.29, 2002.8 ± 1335.69, and 605.52 ± 214.27 on POD1. Total bilirubin was 0.11 ± 0.01, 0.84 ± 0.75, and 0.46 ± 0.27 on POD1. These showed significant lower results in the SP than in the control POD1 (POD1, injected only on the operative day(OD) and examined on POD1) (fig.1). As a result of PCNA (fig.2), it was represented a strongly expressed pattern in SP compared to control group on POD1 & 2 (POD2; OD and POD1, total 2 injections and examined on POD2). There were significant differences between groups (p < 0.05). Phosphated ERK was significantly increased in SP group compared than saline group (fig.3).

Conclusions: In Rat hepatectomy models, substance P had liver regeneration effect on early stage. It is considered to be effective in liver regeneration within 24 hours of Substance P injection. SP may have the potential to improve the recovery and prognosis after liver surgery



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Steroid-Free Living Donor Liver Transplantation Using Rabbit Antithymocyte Globulin Induction Reduces Incidence of Acute Cellular Rejection.

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Purpose: The efficacy of steroid-free immunosuppression protocols using rabbit antithymocyte globulin (RATG) induction with tacrolimus minimization has previously been described in deceased donor liver transplantation. However, rabbit antithymocyte globulin (RATG) induction with tacrolimus minimization has not been described in a large cohort of living donor liver transplant recipients. Steroid avoidance in liver transplantation has been found to reduce post transplant morbidity, including reducing the incidence of cytomegalovirus infection and post-transplant diabetes. The purpose of this abstract is to examine a steroid-free induction protocol in a large living donor liver transplant cohort.

Methods: The outcomes of 22 consecutive living donor liver recipients who underwent transplantation at a single center in the current era (2016-2021) and who received RATG induction with only a single dose of methylprednisolone, given prior to the first dose of RATG are examined. Mycophenolate mofetil was initiated perioperatively with delayed initiation of tacrolimus. Sirolimus replaced tacrolimus if serum creatinine remained above 2.0mg/dL by postoperative day 7. Patients were weaned to tacrolimus or sirolimus monotherapy at 6 months. Differences between groups were evaluated by means of two proportions z-test. All analyses were performed using SAS version 9.4.

Results: The most common causes of liver failure in the living donor cohort were nonalcoholic steatohepatitis (26%), autoimmune hepatitis (21%), and hepatocellular carcinoma (21%). 68% of recipients were female. Recipients' mean age was 56 years ± 9.6. 73% received right lobes. Mean natural Model for End Stage Liver Disease - Sodium (MELD-Na) was 17±6.5 (range 6-29). One year patient survival was 94.7%, as compared to 89% in the multi-institutional A2ALL trial (p=0.22). Death censored one year graft survival was 88.9%. Biopsy proven allograft rejection was 5.3% during the first-year post-transplant, as compared to 26% in A2ALL (p=0.02). No living donor recipient required steroid taper for treatment of biopsy-proven rejection.

Conclusions: This is the largest reported series of living donor liver recipients using a steroid-free protocol with RATG induction demonstrating excellent outcomes and low rates of acute cellular rejection.