Simultaneous Liver Kidney Transplantation from Brain death and Living Donor: early experience in 2 cases

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Introduction
Simultaneous liver kidney transplantation (SLK) remains to be the ideal treatment option for patients with decompensated cirrhosis and end-stage renal disease (ESRD) as the reported survival is similar to liver transplant alone recipients without renal dysfunction. After Liver transplantation alone, hepatorenal syndrome can be recovered, whereas chronic kidney disease may be worsened because of perioperative events and calcineurin inhibitor toxicity. Difficult to predict kidney recovery after liver transplantation, indications for SLK are not precisely defined. The parameters for optimal stratification of these transplant candidates remain unclear. We introduce our early experience of SLK which is performed in small center.

Case presentation 1.

◆ Recipient : 50 years-old male
◆ Chief complaint : melena, general weakness
◆ Patient presented with melena and abdominal distension. Child classification was 11 point, C. MELD score was 32 when he visited emergency room. He had been admitted for hepatic encephalopathy several times and took hemodialysis 3 times a week.
◆ Past medical history : DM CKD, HTN, alcoholic LC with esophageal varix, hepatic encephalopathy
◆ Preop CT scan

CT scan revealed liver cirrhosis with splenomegaly, moderate amount of ascites, atrophic kidney and no portal vein thrombosis.
◆ He was allocated by status 2a with liver and kidney from brain death donor.
◆ SLK transplantation was done at 2014.07.29
- LT first
  OP time : 9hrs, graft weight : 1600g
  Vein anastomosis : side-to-side piggy back
  Portal vein anastomosis : Main to main portal vein
  Hepatic artery anastomosis : common hepatic level
  Duct anastomosis : duct to duct
- KT
  OP time : 2hrs 30 min
  Rt. graft implanted to Lt iliac fossa.
  Renal a. & v. was anastomosed to Lt ext. iliac vessel.

Conclusions
We had performed 2 cases of SLK who had DM CKD and liver cirrhosis. All patients recovered well with normal liver function and kidney function. SLK could be the good treatment option for patients with ESLD and ESRD.

Case presentation 2.

◆ Recipient : 51 years-old male
◆ Chief complaint : abdominal distension
◆ Patient presented with abdominal distension. Child classification was B. MELD score was 20. He has taken peritoneal dialysis for DM CKD.
◆ Past medical history : DM CKD, HTN, DM retinopathy, HBV-LC.

◆ Liver donor
  Son : 20 years old
  graft : Rt. Lobe, eGRWR : 1.6, Remnant liver : 31.4%

◆ Kidney donor
  Spouse : 52 years old
  graft : Lt kidney.

◆ SLK transplantation was done at 2018.05.26
- KT first
  OP time : 2hrs 46 min
  Lt. graft implanted to Rt iliac fossa.
  Renal a. & v. was anastomosed to Rt ext. iliac vessel.
- LT
  OP time : 12hrs 15min, graft weight : 816 g,
  Hepatic Vein : Rt.HV, inf. HV, V5&V8 to IVC
  Portal vein : 2 portal veins(ant & post.) were formed into one lumen
  Hepatic artery anastomosis : Rt. HA.
  Duct anastomosis : duct to duct

We had performed 2 cases of SLK who had DM CKD and liver cirrhosis. All patients recovered well with normal liver function and kidney function. SLK could be the good treatment option for patients with ESLD and ESRD.