

“Right Sided Laparoscopic Donor Nephrectomy - Dream Comes True”

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Objective : To evaluate the outcomes of right sided laparoscopic donor nephrectomy in Pakistani kidney donors

Introduction:

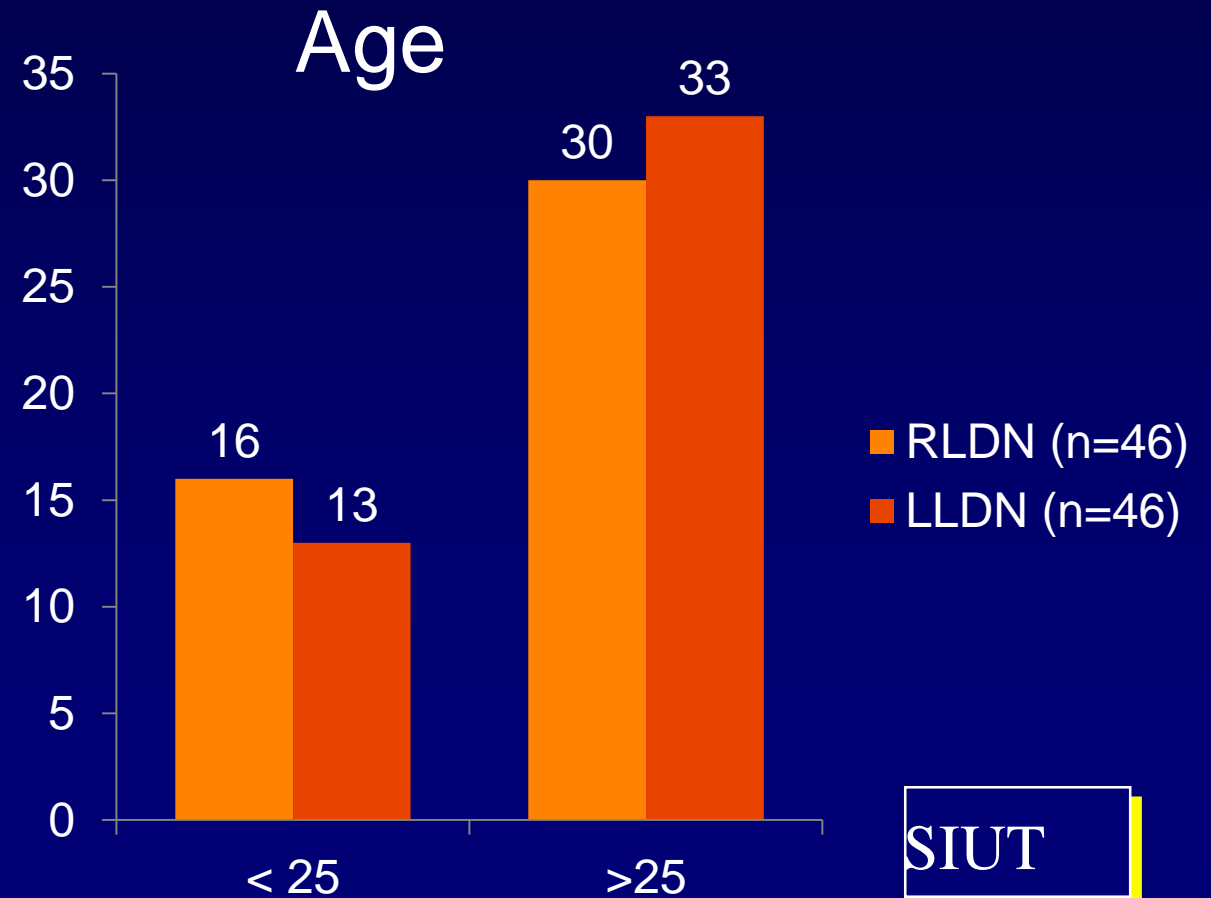
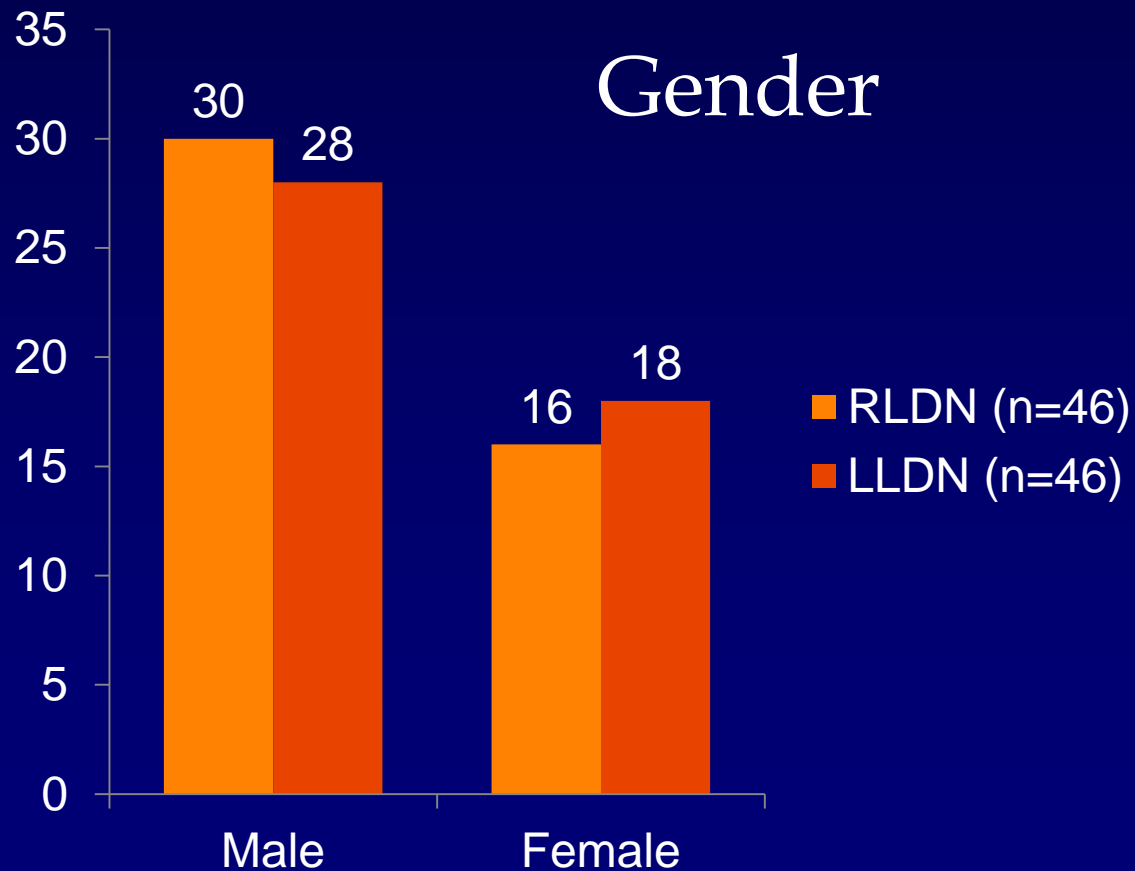
- Laparoscopic donor nephrectomy has become standard of care for Donors. Laparoscopic donor nephrectomy is being progressively accepted with considerable decreased morbidity and favorable graft outcomes.
- Most LDN are performed on left side because of longer renal vein length and other favorable factors. Right-sided laparoscopic donor nephrectomy is technically more difficult and much more challenging because of handling of the liver, dissection of short renal vein and IVC which require greater skills. Short length of renal vein of right kidney increases the risk of thrombosis which may be a therapeutic challenge in recipient.
- We present our experience of right laparoscopic donor nephrectomy, which was a substantial percentage of all performed laparoscopic donor nephrectomies.

CT Renal Angiogram



Materials and Methods

- We retrospectively analyzed all the donor nephrectomies performed laparoscopically at a SIUT from May 2020 to Feb 2023, Records of donor with Right sided LDN were compared with Left sided LDN.
- Demographics, Intraoperative and Post-operative parameters were compared. Graft outcome of recipient was compared as final outcome.

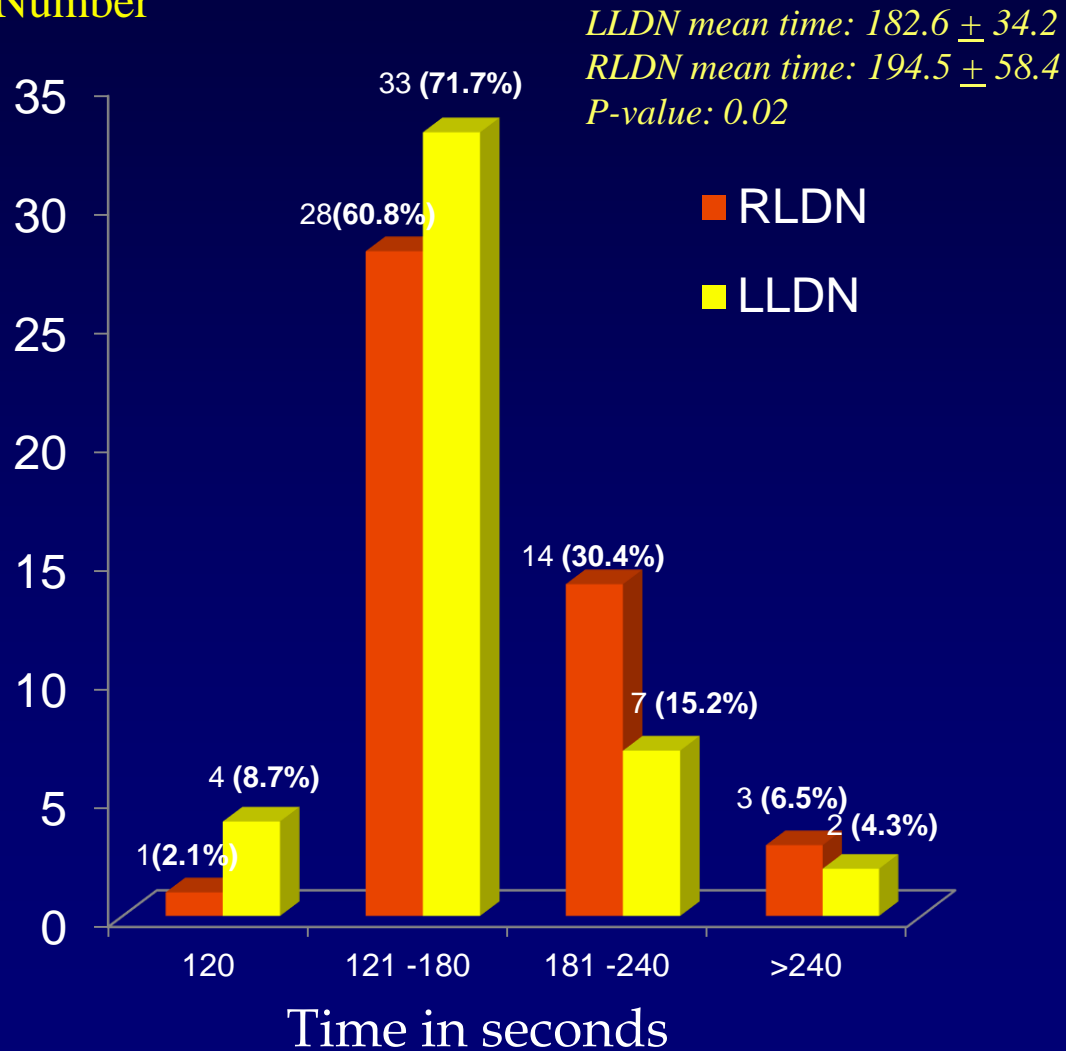


Results:

- We performed 92 laparoscopic donor nephrectomies, 46 left donor nephrectomies and 46 right donor nephrectomies. Of 92 donor nephrectomies, 58 cases were male and 34 were female.
- Donor surgery time for LLDN was mean time: 182.6 ± 34.2 minutes and RLDN mean time: 194.5 ± 58.4 minutes (P-value: 0.02).
- Warm ischemia time for LLDN mean time: 2.06 ± 0.78 minutes and RLDN mean time: 2.97 ± 1.20 minutes (P-value: <0.037).
- Hospital stay for the donors were comparable in both groups.
- Recipient Renal functions with Laterality of Donor Kidney were also comparable in both groups.
- Complications of LLDN were 15.3% including Perioperative Conversion to open surgery 3 (6.5%), Postoperative, Referred pain, 2 (4.3%) Transient rise in serum creatinine, 1 (2.1%) Wound infection 1 (2.1%).
- Complications of RLDN were 4.3% including Perioperative Conversion to open surgery 1, (2.1%) Postoperative Cellulitis of right abdominal wall 1, (2.1%).
- The surgical outcomes or complication rates in right side laparoscopic donor nephrectomy were not significantly different. Regarding recipients, we found that graft function, perioperative parameters, and vascular complications did not differ much in right side laparoscopic donor nephrectomy.

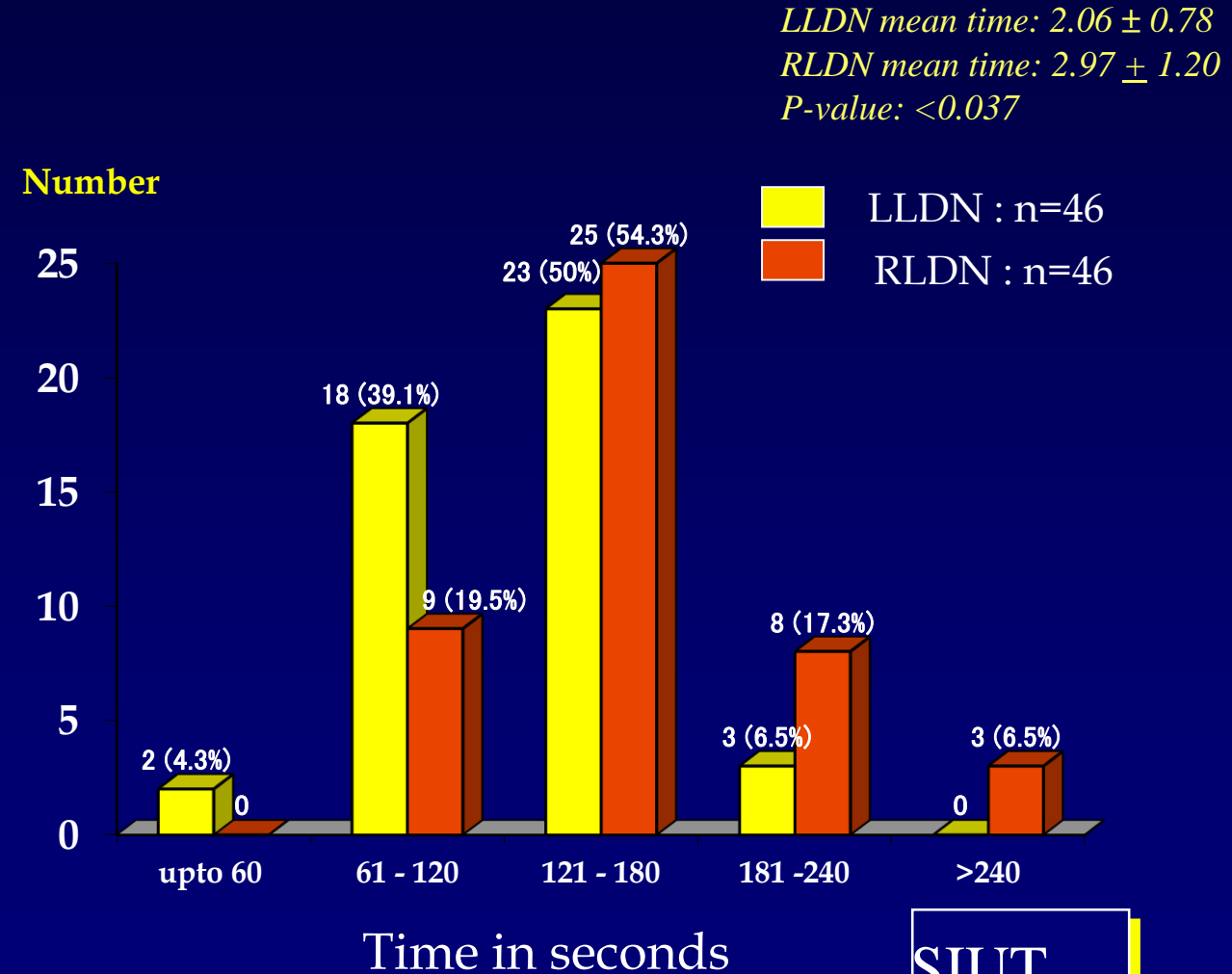
Donor Surgery Time

Number



Warm Ischemic Time

Number



Recipient Renal functions with Laterality of Donor Kidney



Conclusion:

- Right sided kidney can be harvested for live related renal transplant laparoscopically with excellent donor outcome as well as comparable graft function with left sided laparoscopic group.
- Right sided LDN should be performed after having enough experience of left sided donor nephrectomy.