

IMMEDIATE OUTCOME OF KIDNEY DONORS AT PKLI: A SINGLE CENTER EXPERIENCE

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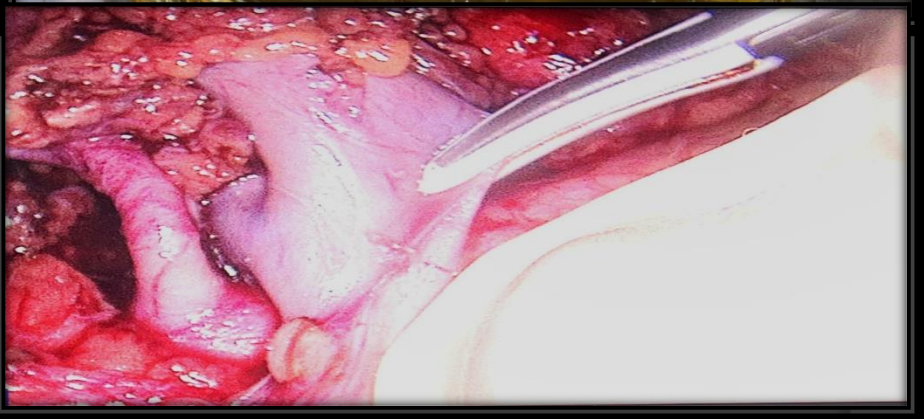
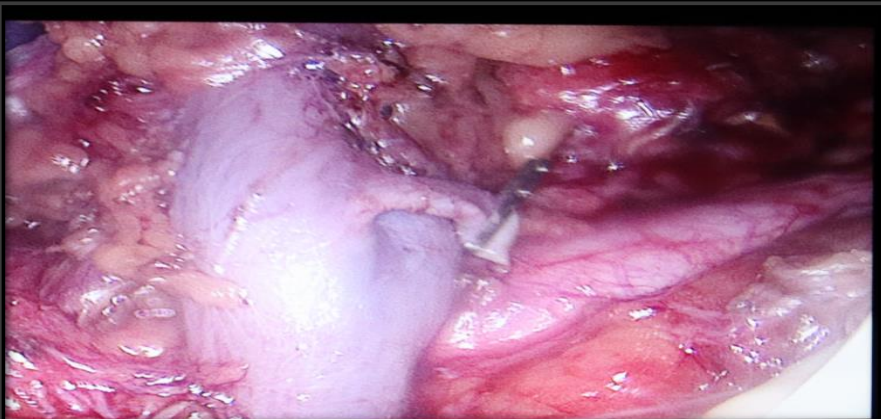
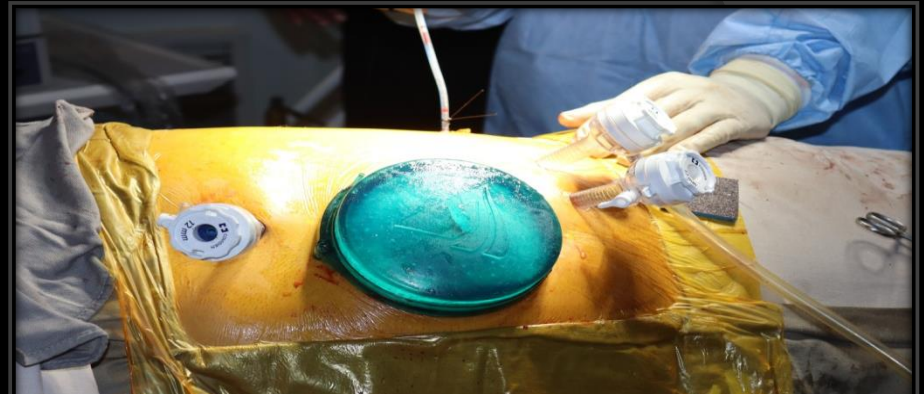
INTRODUCTION

- Renal transplantation has become the standard of care for the patient with end stage renal disease
 - The safety of the donor in any solid organ transplant is of paramount importance as the donor did not require the surgery
 - Dr. Joseph Murray, the pioneer in transplant surgery and the noble laureate always highlighted the importance of the life of the donor who did not need the surgery and its burden lies on the conscience of the operating surgeon
 - Donor mortality has serious impact on the surgeon and can lead to the closure of the program. (1)
 - Hand-assisted laparoscopic nephrectomy (HALS), can be used as a transition from open to pure laparoscopic nephrectomy but can be used as standard of care procedure
 - HALS nephrectomy is associated with steep learning curve as a hand port allows surgeon's better tactile sense, manipulative ability, and confidence. (2)
 - Offers additional safety, especially in a vascular accident in patients
1. Charles Miller et al. Preparing for the inevitable: the death of a living liver donor: *LiverTranspl.*2013 Jun;19(6):656-60.
 2. Shohab D et al. Hand-assisted laparoscopic donor nephrectomy: A single-center study. *Saudi J Kidney Dis Transpl.* 2017 May-Jun;28(3):661-663.

Materials and Methods

- Retrospective observational study
- Seven hundred and twenty one donor nephrectomy surgeries were performed by Hand Assisted laparoscopic technique between July 2018 and February 2024 at PKLI.
- Data regarding patient age, gender, hepatitis-B, Hepatitis-C, CMV, Post operative complications and hospital stay were collected by data base Review.
- Two patients were converted to open, one because of staple malfunction and other because of a very short right renal vein
- Data was analyzed using SPSS Version 20

HALS NEPHRECTOMY TECHNIQUE



Results

Number of patients	721	
Males	299	42%
Females	422	58%
Mean Age	36.62 ± 9.76 Years	
Mean BMI	25.68 ± 7.92 Kg/m ²	
HCV positive	38	5.2%
HBV positive	0	
CMV positive	707	89%
H/O previous surgery	125	17.33%
Renal stones	14	1.9%
Hospital stay	2.2 ± 0.55 days	

Complications

Fever	23	3.19 %
Blood transfusion	04	0.55 %
Incisional hernia	04	0.55 %
Conversion to open	02	0.28%
Wound infection	09	1.24

LITERATURE REVIEW

- In a comparison of HALS vs Pure laparoscopic donor nephrectomy HALS enhances the safety margin of the procedure along shorter operative and warm ischemia time.

Lindström P et al. Surg Endosc. 2002 Mar;16(3):422-5

- Widmer JD et al compared hand-assisted retroperitoneoscopic (HARS) and hand-assisted laparoscopic (HALS) LDNs and found HARS technique is associated with a shorter WIT and a reduced incidence of postoperative paralytic ileus.

Widmer JD et al. BMC Urol. 2018 May 10;18(1):39

- Broe MP et al compared pure laparoscopic vs hand assisted technique and found little statistical evidence to recommend one technique. HALDN is associated with a shorter warm ischemia and operative time. LDN has equal safety to HALDN.

Broe MP et al . Arab J Urol. 2018 Jul 7;16(3):322-334

Conclusions

- HALS Donor nephrectomy is a safe and effective procedure with minimal complications.
- There was no donor mortality
- The incision for port placement and kidney removal is non-muscle cutting and thus Postoperative pain is much less compared to open donor nephrectomy
- The discharge and return to work is sooner than open nephrectomy
- HALS donor nephrectomy offers an extra safety margin to control any bleeding by hand, if a vascular accident takes place (e.g. slipped clips or failed stapler), as compared to pure lap nephrectomy
- HALS nephrectomy can be used as standard of care surgery or can be used as a transition to pure Lap surgery