

EVALUATION OF EARLY CLINICAL OUTCOME AFTER LAPROSCOPIC NEPHRECTOMY FOR BENIGN NON FUNCTIONING KIDNEY IN PEDIATRIC AGE GROUP

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INTRODUCTION

Laparoscopic procedures have gained a strong momentum in the last 20 years. Indications and benefits of Laparoscopy in pediatric are well established so that laparoscopic nephrectomy had become the gold standard in management of non functioning kidney.

Laparoscopic nephrectomy has been performed for different indications. It is easy to learn, carries no intraoperative or postoperative complications in the hands of trained personnel. Short operative time, shorter hospital stay, rapid recovery and excellent cosmetic outcome are the great advantages of the technique.

Laparoscopic partial nephrectomy is a technically demanding procedure necessitating a long learning curve. Both upper and lower partial nephrectomy can be performed by laparoscopy. Caution should be taken to avoid loss of the function of the remaining moiety. It is recommended to preserve this technically difficult procedure to specialized centers with great laparoscopic experience.

Aim of the work

The aim of this study is to evaluate the feasibility and safety of laparoscopic nephrectomy for benign diseases in the pediatric age group.

PATIENTS

After approval of the local ethical committee of Alexandria faculty of medicine , parents or caregivers of the patients who included in this study had been informed about the procedure and signed an informed written surgical consent. Our Prospective study included 20 patients who had been studied and evaluated for the first 3 months post operatively. The selected patients had been diagnosed with non functional kidney by renal isotope scan (DMSA or DTPA).

METHODS

Patients were operated for laparoscopic nephrectomy in addition to follow up for 3 months postoperatively

Inclusion Criteria:

Patients between 3 months – 12 years.

All cases with nonfunctioning kidney with split renal function < 10 % due to benign causes like neglected VUR, PUJO, duplex anomalies, obstructing megaureter and MCDK complicated with hypertension (HTN), recurrent urinary tract infection (UTI), palpable abdominal mass.

Exclusion Criteria:

- Patients with any absolute contraindications to laparoscopic nephrectomy like active abdominal wall infection or peritonitis, and severe cardiopulmonary disease. Relative contraindications vary with the experience of the surgeon. Severe perinephric adhesions such as those encountered with pyonephrosis, xanthogranulomatus pyelonephritis, can render renal hilar and capsular dissection exceedingly difficult and are generally associated with a higher rate of conversion to open nephrectomy.

RESULTS

Table (1): Distribution of the studied cases according to demographic data.

	No.	%
Sex		
Male	11	55.0
Female	9	45.0
Age (years)		
Min. – Max.	2.0 – 10.0	
Mean ± SD.	5.13 ± 1.93	
Median (IQR)	5.0 (4.0 – 6.0)	

IQR: Inter quartile range

SD: Standard deviations

Table (2): Distribution of the studied cases according to operative time

Diagnosis	Mean Operative time	No.
MCDK	90	5
VUR	100	4
PUJO	95	4
Obstructing megauereter	100	3
Duplex anomalies	120	4
Min. – Max.	90.0 – 120.0	
Mean ± SD.	95.7 ± 10.04	
Median (IQR)	92.5 (90.0 – 120)	

IQR: inter quartile range

SD: Standard deviation

CONCLUSION

Laparoscopic total nephrectomy is feasible, safe, and relatively easy to learn with reasonable learning curve and carries minimal intraoperative or postoperative complications.

