

Abstract no.: PR. 1-7

Laparoscopic vs. Robotic-Assisted Partial Nephrectomy for Renal Tumors: A 5-Year Retrospective Comparison of Perioperative and Functional Outcomes in Kowloon East Cluster.

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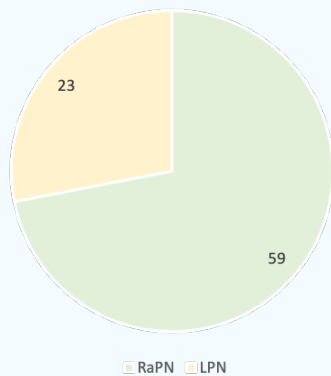
OBJECTIVE

- Compare perioperative and functional outcomes: laparoscopic (LPN) vs. robotic-assisted partial nephrectomy (RaPN) for renal tumors
- Evaluate relationships between tumor volume, ischemic time, and postoperative renal function preservation

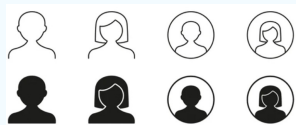
METHODOLOGY

- A retrospective review of patients receiving PN at KEC in 2020-2025
- Focus on renal cell carcinoma
- Propensity score matching between patient demographics vs. tumor complexity and size

PATIENTS



Propensity Score Matching
↓
Demographics
Tumor characteristics



15 pairs

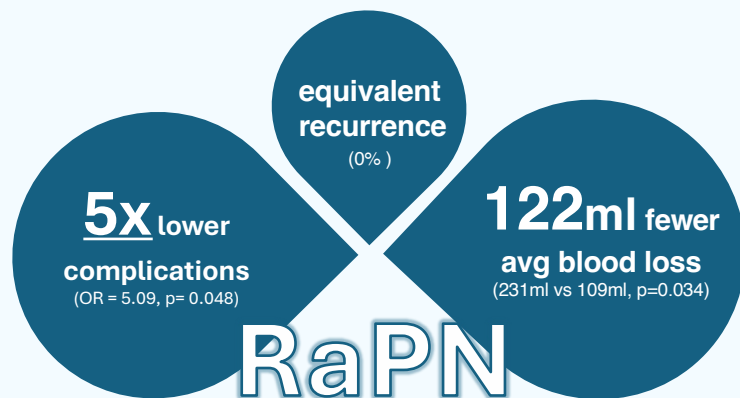
CONCLUSION

Robotic assistance:

- ✓ precise haemostasis
- ✓ reduce complications
- ✓ good oncological outcomes

<30 minutes for best renal fx preservation

OUTCOMES



OVERALL

- Negative correlation – ischemic time vs change in CrCl (Spearman's ρ : 0.331, $p=0.007$)
 - Most significant renal function decline above 30 minutes (6.5ml/min more)
- Positive correlation – tumor volume vs ischemic time (Spearman's ρ : 0.213, $p=0.0612$)
- NO correlation between RENAL score and ischemic time (Spearman's ρ 0.11, $p=0.35$)

