

Assessing the Quality of Care to and Emotional Well-being of Kidney Cancer Patients Undergoing Nephrectomy Prior to the Implementation of an Enhanced Recovery After Surgery (ERAS) program

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INTRODUCTION

- In 2015, 6,200 Canadians were diagnosed with - and 1,800 died from - kidney cancer. Surgery, by either removal of the whole kidney (radical nephrectomy) or removal of a portion of the kidney where the tumor is located (partial nephrectomy), represents the standard treatment for non metastatic kidney cancer.
- Although improvements to surgical techniques over the years, such as minimally invasive robotic or laparoscopic surgery, as well as perioperative management, has improved patient recovery. However, 1 out of 4 patients will still experience a complication after the procedure. Complications include: minor pain, delayed bowel movement, skin infection or rare cases of life-threatening thromboembolism, bleeding, or sepsis.
- Studies have shown that implementing an Enhanced Recovery After Surgery (ERAS) program, a modified care pathway before, during, and after surgery, can effectively reduce complications, and reduce length of hospital stay (LOS), total costs and patient anxiety and quality of life (QOL).

OBJECTIVES

- To identify current perioperative patient outcomes, in terms of complication, anxiety, emotional well-being and QOL after kidney cancer surgery, before implementation of an ERAS program at the JGH.
- Assess the potential improvements an ERAS program may achieve in these kidney cancer patients after surgery.

METHODS

Participants: 43 recently diagnosed kidney cancer patients (24 men and 19 women; average age 58.98 ± 11.53 years old).

Procedure: Quality of care to and emotional well-being of these patients were assessed via the following standardized questionnaires at 4 different time points:

Pre-Operative:

- Amsterdam Preoperative Anxiety and Information Scale (APAIS)
- Hospital Anxiety and Depression Scale (HADS)
- EORTC-Quality Of Life

Discharge day:

- EORTC-IN-Patient Satisfaction

Post-Operative (day 30):

- Hospital Anxiety and Depression Scale (HADS)
- EORTC-Quality Of Life

Post-Operative (day 180):

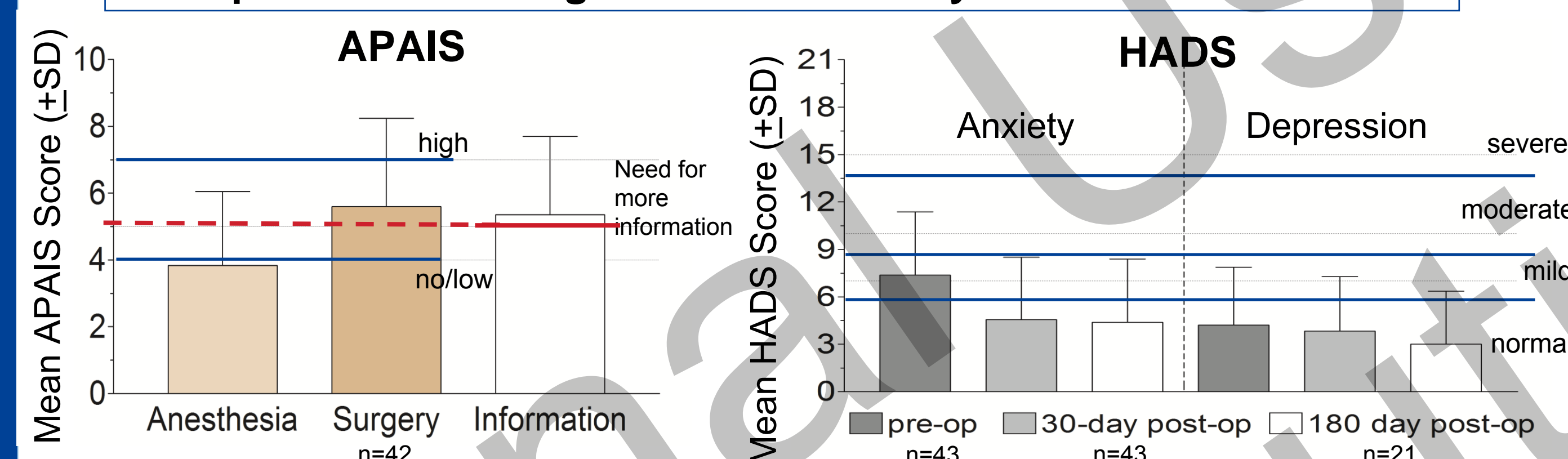
- Hospital Anxiety and Depression Scale (HADS)
- EORTC-Quality Of Life

RESULTS

Overview of Surgery and Outcomes

Type: 30 partial + 13 radical nephrectomies
Approach: 2 open procedures, 41 minimally invasive (7 lap, 32 robotic, 2 conversions to open)
Duration: 3.49 ± 1.08 hours, Median: 3.30 hours
Blood loss: 301.9 ± 427.69 mL, Median: 200.00 mL
Length of hospital stay: 3.12 ± 1.50 days, Median: 3.0 days
Post-Operative Complications: 5 patients – 11.6% - 1 wound infection, 1 inferior epigastric bleeding, 1 peripheral bilateral edema, 2 DVTs

Pre-operative Data: High Levels of Anxiety & Need for Information



Quality of Life: Low Emotional Function and Increased Symptoms of Fatigue, Pain, Insomnia and Constipation

EORTC-Quality Of Life-C30

	Pre Operative	30 Days PostOp	180 Days PostOp (n=21/43)
Global Health Status	69.57%	71.90%	74.60%
Functional Scales	81.64%	79.59%	85.42%
Physical Role	84.34%	77.98%	84.13%
Emotional	81.01%	70.16%	86.51%
Cognitive	71.89%	80.04%	82.66%
Social	86.82%	88.77%	85.71%
Symptom Scales/Items	15.98%	19.80%	14.94%
Fatigue	30.88%	33.59%	32.77%
Nausea & Vomiting	2.71%	2.71%	2.38%
Pain	21.03%	27.13%	17.46%
Dyspnoea	11.90%	20.16%	15.15%
Insomnia	30.08%	31.78%	26.98%
Loss of appetite	13.49%	12.40%	4.76%
Constipation	16.66%	20.16%	17.46%
Diarrhea	7.94%	14.73%	9.52%
Financial difficulty	9.13%	15.50%	7.94%

Higher score for Global Health Status = High Quality Of Life
 Higher score for Functional Scales = Higher healthy level of functioning
 Higher score for Symptom Scale/Item = High level of symptomatology/problems

Post Operative Patient Satisfaction: Room for Improvement

	Post Operative Patient Satisfaction Percentages
Doctors (Interpersonal skills, Technical skills, Information provision, Availability)	85.77%
Nurses (Interpersonal skills, Technical skills, Information provision, Availability)	77.98%
Other hospital personnel kindness, helpfulness and information giving	76.19%
Waiting time (performing and receiving medical tests or results)	76.43%
Access	89.62%
Exchange of information	74.76%
Comfort/Cleanliness	73.33%
General satisfaction	81.43%

Higher scale score represents a higher level of satisfaction with care.

PATIENT IMPACT

The present study assessed the patient's anxiety as well as quality of life before and after surgery for kidney cancer prior to the implementation of an ERAS program. Satisfaction with care provided during the hospital stay was also assessed.

- There was a mild level of anxiety among patients as well as a need for supplementary information about the procedure pre-operatively.
- The Quality of Life decreased rapidly a month after the procedure. Specifically, the emotional living function of these patients was low.
- In terms of reported symptoms, fatigue, pain, insomnia and constipation were four areas that required attention.
- After discharge, improvement in patient satisfaction was needed for an optimal patient experience.

These findings highlight areas that might need improvement, such as initial patient information. Nevertheless, complication rate and length of hospital stay are favorably comparable to literature results.

CONCLUSION

The present study provides an overview of the current quality of care and emotional well being of patients undergoing radical/partial nephrectomy at the JGH. It therefore offers a baseline measure to compare the effects of implementing an ERAS program on the patient's experience.

Based on the promising results of ERAS pathways when applied to colorectal surgery, the introduction of an ERAS program for nephrectomy patients may improve the patient's experience by decreasing anxiety and depression related to surgery.

TRANSLATION ACROSS THE RCN

We are now in the process of introducing an ERAS program at the JGH for kidney cancer patients and to analyze the same parameters that will be compared to the ones presented here.

These results will be compared to the MUHC kidney cancer patients, where an ERAS program is already implemented, the objective being a standardization of optimal care within the RCN institutions.