IGCS20_1049

6 VARIATION IN PRACTICE IN ENDOMETRIAL CANCER (EC); CAN MOLECULAR CLASSIFICATION DIRECT CARE AND REDUCE COSTS ASSOCIATED WITH MANAGEMENT?

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Objectives We wished to assess the potential impact of directing EC management based on molecular classification, and the projected cost implications of molecular subtype-directed care.

Methods Surgical staging, treatment, surveillance, and hereditary cancer program(HCP) referrals were assessed for all ECs managed in a single calendar year (2016) across 24 Canadian centers. Variation of practice was recorded, as well as where a change in management would be projected and associated cost implications of that change based on molecular subtype assignment.

Results Data from 862 patients revealed wide variation in surgical staging, with lymph node dissection(LND) performed in 61% of ECs (range 25–100%), including 38% LND in Gr1ECs (0–100%). Adjuvant therapy (type, when/if given) and cancer surveillance (frequency, site e.g., community vs. cancer center) was inconsistent within and across centers for both early-and late-stage disease. Molecular classification identified 29% MMRd ECs (n=247) but only 8% of these women had been referred to HCP. 30 women who did consult HCP were MMRproficient. 38% of MMRd ECs had no LND and 43% did not receive radiation. 16% and 18% of p53abn ECs had no LND or omentectomy respectively, and only 58% received chemotherapy. De-escalation of treatment in early-stage POLEmut and NSMP ECs (n=63 treated, where molecular classification would direct observation or brachytherapy-only) would have reduced costs by \$348,896–407,830CAD or \$5538–6466CAD per patient.

Conclusions There is currently profound variation in practice for all aspects of EC management with implications to patients and health systems. Molecular classification can provide consistency in care and direct biologically-informed management.

IGCS20_1231

7 SENTINEL LYMPH NODE BIOPSY VERSUS LYMPHADENECTOMY FOR INTERMEDIATE AND HIGH GRADE ENDOMETRIAL CANCER STAGING (SENTOR TRIAL): A PROSPECTIVE MULTICENTER COHORT STUDY

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Background It is unclear whether sentinel lymph node biopsy (SLNB) can replace lymphadenectomy in women with high grade endometrial cancer (EC). We performed a prospective multicenter cohort study (the SENTOR trial) to evaluate the diagnostic accuracy of SLNB using indocyanine green in intermediate and high grade EC (NCT01886066).

Methods Patients with clinical stage I grade 2 endometrioid or high grade EC scheduled for minimally invasive hysterectomy at three academic centers in Toronto, Canada, were prospectively enrolled for SLNB followed by pelvic (PLND) and para-aortic lymphadenectomy (PALND) as the reference standard. The study was powered to determine sensitivity of the SLNB algorithm as the primary endpoint.

Results We enrolled 156 patients (126 high grade); all underwent SLNB and PLND, and 106 (84%) with high grade EC underwent PALND. Sentinel lymph node detection rates were 97% per patient (95% CI 94–99), 88% per hemipelvis (95% CI 83–91), and 78% bilaterally (95% CI 70–84). Of 27 patients (17%) with nodal metastases, 26 were correctly identified by the SLNB algorithm, yielding a sensitivity of 96% (95% CI 81–100), false negative rate of 4% (95% CI 0–19), and negative predictive value of 99% (95% CI 96–100). Only one patient (0.6%) was misclassified by the SLNB algorithm. Two of 27 node-positive patients (7.5%) were identified outside traditional PLND boundaries, and five of 27 (18.5%) required immunohistochemistry for diagnosis.

Conclusion SLNB has comparable, if not superior, diagnostic accuracy relative to lymphadenectomy in high grade EC patients. SLNB is a viable option for the surgical staging of EC.

IGCS20_1246

8 A MULTICENTRIC RANDOMIZED TRIAL TO EVALUATE THE ROLE OF UTERINE MANIPULATOR ON LAPAROSCOPIC/ROBOTIC HYSTERECTOMY FOR THE TREATMENT OF LOW-RISK ENDOMETRIAL CANCER: THE ROMANHY TRIAL (NCT:02762214)

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Background The role of the intrauterine manipulator in minimally invasive hysterectomy for endometrial cancer has been widely debated in terms of impact on the oncological outcomes. To date, definitive conclusions on the possible advantages and oncological safety of its use in endometrial cancer staging are still awaited.

Objectives This randomized trial aimed to assess the role of the uterine manipulator in terms of oncological and perioperative outcomes in patients undergoing minimally invasive (laparoscopic/robotic) staging for presumed low-risk endometrial cancer.

Abstract 8 Table 1 Pathological findings

Variables	All cases (n = 154)	Group A (n = 78)	Group B (n = 76)	p value
Lymph nodal status				
Pelvic Lymph nodes ¶				0.908
Negative	102/106 (96.2)	54/56 (96.4)	48/50 (96.0)	
Positive	4/106 (3.8)	2/56 (3.6)	2/50 (4.0)	
Histotype				0.545
Endometrioid	151 (98.1)	77 (98.7)	74 (97.4)	
Serous	3 (1.9)	1 (1.3)	2 (2.6)	
Grading §				0.875
G1	41/147 (27.9)	21/73 (28.8)	20/74 (27.0)	
G2	90/147 (61.2)	45/73 (61.6)	45/74 (60.8)	
G3	16/147 (10.9)	7/73 (9.6)	9/74 (12.2)	
Miometrial infiltration				0.341
No infiltration	4 (2.6)	2 (2.6)	2 (2.6)	
<50%	117 (76)	63 (80.8)	54 (71.1)	
>50%	33 (21.4)	13 (16.7)	20 (26.3)	
Maximum diameter, mm *	30 (0-90)	25 (0-85)	30 (0-90)	0.171
Lymph-Vasc Space Invasion (LVSI) †				0.584
Negative LVSI	118/151 (78.1)	60/75 (80)	58/76 (76.3)	
Positive LVSI	33/151 (21.9)	15/75 (20)	18/76 (23.7)	
Focal	28/33 (84.8)	13/15 (86.7)	15/18 (83.3)	
Diffused	5/33 (15.2)	2/15 (13.3)	3/18 (16.7)	0.790
Stage				0.867
IA	119 (77.3)	62 (79.5)	57 (75)	
IB	23 (14.9)	11 (14.1)	12 (15.8)	
II	4 (2.6)	2 (2.6)	2 (2.6)	
III	8 (5.2)	3 (3.8)	5 (6.6)	
Cytological findings				
Pre-hysterectomy ‡				-
Negative	137/137 (100)	64/64 (100)	73/73 (100)	
Positive	0/137 (0)	0/64 (0)	0/73 (0)	
Post-hysterectomy ‡				-
Negative	100/100 (100)	45/45 (100)	55/55 (100)	
Positive	0/100 (0)	0/45 (0)	0/55 (0)	

Results are presented as n (%) or median (min-max) as appropriate. Bold font highlights statistically significant differences. ¶ Information available for 152/154 patients. § Information available for 147/154 patients. * Information available for 150/154 patients. † Information available for 151/154 patients. ‡ Information available for 137/154 patients. ‡ Information available for 100/154 patients.

Abstract 8 Figure 1 Kaplan-Meier plots for (A) DFS and (B) OS by study groups

Study Design Enrolled patients were randomly allocated in two groups according to the use (Group A) or no use (Group B) of the uterine manipulator.

The variables collected included baseline demographic characteristics, perioperative data, final pathology report, adjuvant treatment, and follow-up.

Results 154 patients were randomly allocated in Group A (n=78) and Group B (n=76). A statistically significant difference was found in OT for the laparoscopic staging (p=0.005), while no differences were reported for the robotic procedures.

The EBL was significantly lower in Group B (p=0.030). Only one conversion to laparotomy (1.3%) occurred in Group A. Comparable results were recorded in terms of peritoneal cytology, LVSI (p=0.584), and pattern of lymphovascular spread (p=0.790).

With a median follow-up of 38.7 months, no differences were detected in terms of OS and DFS, and in the number of recurrences. The uterine manipulator had no impact on DFS both at univariate and multivariable analysis.

Conclusions The intrauterine manipulator does not affect the perioperative and oncological outcomes of presumed low-risk endometrial cancer patients undergoing laparoscopic/robotic staging.

IGCS20_1423

9

FRAILITY IS INDEPENDENTLY ASSOCIATED WITH WORSE OUTCOMES AND INCREASED RESOURCE USE FOLLOWING PROCEDURES TO TREAT ENDOMETRIAL CANCER

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Introduction Frailty has been associated with poorer surgical outcomes and is a critical factor in procedural risk assessment. The objective of this study is to validate surgical outcomes in patients undergoing surgery for endometrial cancer (EC).

Methods Patients undergoing inpatient gynecologic surgery for EC were identified using the 2005–2017 National Inpatient Sample database. The Johns Hopkins Adjusted Clinical Groups (ACG) frailty-defining diagnosis indicator was used to designate frailty. Multivariate regression models were used to assess the association of frailty with post-operative outcomes and resource use.

Results Of an estimated 339,846 patients, 2.9% (9,868) were considered frail. After adjusting for patient and hospital characteristics, frailty was associated with a four-fold increase in inpatient mortality (adjusted odds ratio [AOR]:4.1; p<0.001) and non-home discharge (AOR:5.2; p<0.001), as well as increased respiratory (AOR:2.6; p<0.001), neurologic (AOR:3.3; p<0.001), renal (AOR:2.0; p<0.001), and infectious (AOR:3.2; p<0.001) complications. While frail patients exhibit increased mortality with age (figure 1), the rate of mortality in this cohort decreased significantly over time (figure 2). Compared with non-frail counterparts, frail patients also had longer lengths of stay (7.6 days vs. 3.4 days; p<0.001) and increased hospitalization costs (\$25,093 vs. \$13,405; p<0.001).

Abstract 9 Figure 1

Abstract 9 Figure 2

Conclusion/Implications Frailty is independently associated with worse surgical outcomes, including mortality, and increased resource use in women undergoing surgery for EC. Though there have been improvements in mortality in more recent years, further efforts to mitigate the impact of frailty should be explored.

Plenary III

IGCS20_1420

10

THE LEARNING CURVE OF ROBOT-ASSISTED LAPAROSCOPY HAS IMPACT ON THE ONCOLOGICAL OUTCOMES OF EARLY STAGE CERVICAL CANCER PATIENTS

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Introduction Previous learning curve studies are focused on short term surgical outcomes of robot-assisted surgery. We are