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


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 G1ECs (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. Escalation of treatment in early-stage POLEmut and NSMP ECs (7.5%) were identified outside traditional PLND boundaries, and five of 27 patients (18.5%) required immunohistochemistry for diagnosis.

Conclusions 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.

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 paraaortic 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.