A CASE-CONTROL STUDY OF ADIPOKINES IN ENDOMETRIAL CANCER AND CORRELATION WITH PROGNOSTIC FACTORS

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Objectives Adipokines like leptin and adiponectin play an important role in inflammation, angiogenesis, apoptosis and tumourigenesis. Such adipokines are postulated to play a role in development of obesity related cancers like endometrial cancers. We aimed to study the serum levels of leptin and adiponectin in cases of endometrial cancers and normal controls.

Methods A prospective case control study was conducted to study the serum levels of leptin and adiponectin in endometrial cancer patients and normal controls over a period of 24 months.

Results Fifty-five cases of endometrial cancers and 25 controls were included in this study. Median serum levels of leptin among cases and controls were 59.7 (16.0–483.5) ng/ml and 38.0 (4.7–107.2) ng/ml respectively (p=0.015). Median serum adiponectin levels among cases and controls were 8481.4 (1700.7–24956.28) and 9547.5 (3015.0–24257.0) ng/ml respectively (p=0.906). Leptin:adiponectin (L:A) ratio was significantly higher in cases than in controls (0.0086 v 0.0042, p=0.014). Due to high standard deviation of values from mean, leptin, adiponectin and L:A ratio were analysed in tertiles among cases and controls. Only age and BMI were significantly correlated with higher tertile of serum leptin and L:A ratio. Prognostic indicators like grade, stage and myometrial invasion were not correlated with leptin and adiponectin tertiles. Since lymph node metastasis was less common in our cohort, correlation with adipokines was not possible.

Conclusions Higher levels of serum leptin and lower levels of serum adiponectin seem to be positively correlated with cases of endometrial cancer. Adipokine levels did not show a correlation to histological prognostic markers.

COMPARING THE SURGICAL OUTCOMES OF ROBOTIC VERSUS LAPAROSCOPIC SURGERY IN THE TREATMENT OF ENDOMETRIAL CANCER FOR MORBIDLY OBSESE PATIENTS

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Objectives Compare the surgical outcomes of robotic versus laparoscopic surgery in the treatment of endometrial cancer for morbidly obese patients.

Methods A prospective analysis of obese patients who underwent robotic assisted hysterectomy with lymphadenectomy (RHLND) was compared to patients who underwent a total laparoscopic hysterectomy with lymphadenectomy (LHLND) for treatment of endometrial cancer. Estimated blood loss (EBL), operative times, intraoperative and postoperative outcomes, number of pelvic (PLN) and paraaortic (PALN) lymph nodes retrieved and rate of conversion to open laparotomy were analyzed. Fisher Exact tests or two tailed t-tests was performed to evaluate for difference.

Results Total of 330 patients underwent minimally invasive surgical treatment for endometrial cancer between 1999–2019. 254 (77%) patients underwent RHLND and 76(23%) underwent LHLND. The mean age and BMI were similar. RHLND average operative time (123 minutes) vs LHLND (169 minutes) and RHLND EBL (50cc) vs LHLND EBL (198cc) was less. However, the average number of PLN (18) and PALN (9) in RHLND was found to be significantly less than LHLND PLN (24) and PALN (17). The rate of conversion was less for RHLND (0%) and LHLND (7/76) (9.2%) group. No difference in postoperative 17/254 (7%) RHLND vs 4/76 (5%) LHLND and intraoperative complication rate 5/254 (2%) for RHLND vs 2/76 (3%) LHLND respectively.

Conclusions Surgical outcomes for treatment of endometrial cancer in obese patients with RHLND compared to LHLND is associated with less blood loss, shorter operative time, less conversion to open laparotomy with no difference in rate of intraoperative and postoperative complication.

CHARACTERIZING ISOLATED TUMOR CELLS IN REGIONAL LYMPH NODES OF EARLY ENDOMETRIAL CANCER

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Objectives To examine isolated tumor cell (ITCs) characteristics in regional lymph nodes of early-stage endometrial cancer. Methods This is a retrospective cohort study examining the Surveillance, Epidemiology, and End Result Program. The study population was 6,472 women with non-metastatic, node-negative T1 endometrial cancer who underwent primary hysterectomy and surgical nodal evaluation. Multivariable binary logistic regression model was used to identify independent characteristics for ITCs. Postoperative therapy according to ITCs status was also assessed with propensity score weighting.

Results ITCs were seen in 111 (1.7%) cases. In a multivariable analysis, ITCs were largely associated with deep myometrial invasion (T1b versus T1a, 4.0% versus 1.0%, adjusted-odds ratio [aOR] 3.42, P<0.001) and large tumor size (>4 versus ≤4 cm, 3.0% versus 1.6%, aOR 1.55, P=0.037). Moreover, women undergoing sentinel lymph node biopsy (SLN) had a higher likelihood of identifying ITCs compared to those undergoing lymphadenectomy (LND): 2.7% for SLN alone, 3.7% for SLN/LND, and 1.2% for LND alone (aOR ranged 2.60–2.99, P<0.001). Women who had ITCs identified were more likely to receive postoperative therapy (81.8% versus 31.7%, P<0.001), including external beam radiotherapy (EBT) alone (25.1% versus 3.2%) and chemotherapy/EBT (16.3% versus 1.9%). Similar associations were observed in the low-risk group (stage IA, grade 1–2 endometrioid, 78.4% versus 9.2%, P<0.001), including EBT alone (35.3% versus 0.6%).