

recurrence of 22 m (range: 6–47 m). There were 7 (58%) vaginal recurrences, 1 (8%) pelvic, 2 (16%) abdominal, 1 (8%) vagina and pelvis, and 1 (8%) pelvis and abdomen. The cumulative incidence of recurrence (CIR) for all patients at 3 years was 11% (95% Confidence interval (CI): 5–20). For all IAG1 patients, 57 (45%) patients had inner (MI) and 3-year CIR for patients with (MI) was 17% compared to 5% ( $p=0.04$ ) in those without MI. CIR was also significant for patients with tumor size greater than 3 cm compared to less than 3 cm (20% vs 1.8%,  $p=0.01$ ). The average time between biopsy and surgery was 2.3 m (range: 0–25 m). Logistic regression showed that for every one month increase in time from biopsy to surgery there was a 13% increase in the odds of recurrence (OR 1.13, 95% CI 1.03–1.24,  $p=0.01$ ). Conventional adverse risk factors of age, number of LNs removed, and LVSI showed no association with recurrence.

**Conclusions:** In patients with Stage 1A grade 1 EC, time to definitive surgery after biopsy is the most important predictor of recurrence. Patients with MI and tumor size over 3 cm are at higher recurrence risks and should be followed regularly. When possible, time between biopsy and surgery should be limited as this can negatively impact patient outcome.

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#### Poster #34

##### Association of low-dose aspirin use and survival of women with monocytosis in endometrial cancer

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**Objectives:** Tumor-associated macrophages (TAMs) are known to be associated with decreased survival in endometrial cancer. The number of monocytes, progenitors of macrophages, has been shown to be associated with worse survival in endometrial cancer. Given a recent study demonstrating anti-tumor effects with aspirin via TAMs inhibition in other tumor models, this study examined the association of aspirin use on survival among endometrial cancer patients with monocytosis.

**Methods:** This is a secondary analysis of a previous retrospective cohort evaluating cases of endometrial cancer of all histologic types following hysterectomy-based surgical staging from 2003–2013 ( $n=541$ ). Disease-free survival from endometrial cancer was compared between women exhibiting monocytosis at diagnosis (defined as  $>0.7 \times 10^9/L$ ) versus women without monocytosis, stratified by low-dose aspirin use.

**Results:** The median follow-up of censored cases was 54.6 months, and there were 84 women who developed disease recurrence. At endometrial cancer diagnosis, 106 (19.6%) women used low-dose aspirin whereas 435 (80.4%) women did not. In the non-aspirin group, there were 107 (24.6%) women who had monocytosis, and women with monocytosis had a significantly decreased disease-free survival compared to those without monocytosis (5-year rate, 70.0% versus 81.8%,  $P=0.001$ ). Aspirin users had a lower frequency of monocytosis compared to non-users (odds ratio 0.59, 95% confidence interval 0.33–1.03,  $P=0.07$ ). Among the aspirin group (monocytosis,  $n=17$ , 16.0%), women with monocytosis had a 5-year disease-free survival similar to those without monocytosis (78.9% versus 88.1%,  $P=0.94$ ). Neutrophilia, anemia, and thrombocytosis did not demonstrate this association (all,  $P>0.05$ ).

**Conclusions:** Our study suggests a protective role of low-dose aspirin in women with endometrial cancer exhibiting monocytosis.

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#### Poster #35

##### Pain with no gain? The impact of thoracic epidurals on an enhanced recovery program for open gynecologic surgery

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**Objectives:** Thoracic epidurals (TEs) have been a key component of opioid-sparing, multimodal perioperative analgesia since the innovation of enhanced recovery after surgery (ERAS) programs. The study objective was to examine the utilization, effectiveness and cost of TEs in an ERAS program for open gynecologic surgery.

**Methods:** A retrospective review of gynecologic oncology patients undergoing elective laparotomy on a TE-based ERAS program from July 2016 to June 2017 was performed ( $n=113$ ). Patient demographic, surgical and post-operative variables were collected. These included venue of TE placement, duration of postoperative TE use, indication for TE discontinuation, pain scores, opioid requirements, cost and length of stay (LOS). Pain scores, opioid requirements and LOS were compared between patients with failed TE analgesia and those with consistently functional TEs. Failure was defined as temporary or permanent discontinuation of TE analgesia before tolerance of oral intake. T-tests and Chi squared tests were used to test associations between continuous and categorical variables, respectively. Statistical significance was defined at the  $\alpha=0.05$  level.

**Results:** The overall TE failure rate was 30%. Hypotension was the most common indication for temporary TE discontinuation (84.8%). The most common indications for permanent discontinuation were tolerance of oral intake (70.6%), TE dysfunction (9.1%) and hypotension (8.2%). Supplemental PCA use was required in 40.7% of cases. The average per patient cost of TE was \$1480. Intraoperative TE placement was performed in 31.8% of cases. Mean OR time required for TE placement was 19.25 minutes (range 5–45 minutes), adding an average of \$280 to the procedure cost. Patients with failed TE analgesia were more likely to have a cancer diagnosis (88.9% vs 69.7%,  $p=0.07$ ), have an increased LOS (8.8 vs 6.8 days,  $p=0.007$ ) and require supplementation with a PCA (66.8% vs 30%,  $p=0.002$ ). TE failure was also associated with increased narcotics utilization (231 vs 80 oral morphine equivalents,  $p=0.0085$ ), but did not impact pain scores during the immediate postoperative course.

**Conclusions:** The risk and cost of TE failure are high and may compromise the ERAS mission. The value of TEs in comparison to alternative loco-regional blocks on ERAS needs to be prospectively evaluated.

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#### Poster #36

##### Tumor vs stroma: Understanding the Role of Discoidin Domain Receptor 2 (DDR2) in ovarian cancer metastasis, chemoresistance, and survival (Final version - please disregard first submission that exceeded character limit)

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**Objectives:** The purpose of this study is to show that discoidin domain receptor 2 (DDR2) expression is critical in ovarian cancer metastasis and predictive of chemoresistance and poor survival.