Focused Plenary  
Focused Plenary Session V - Endometrial Cancer/Clinical Practice  
Abstracts 49-53

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Complex atypical hyperplasia and the concurrent risk of endometrial adenocarcinoma: A community-based experience

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Objectives: The optimal surgical management of women with complex atypical hyperplasia (CAH) continues to be controversial. Despite recent data (Trimble, 2006), it remains unclear whether these patients should universally be offered surgical staging. The aim of this study was to determine the concurrent rate of endometrial cancer (EC) in women with a diagnosis of CAH based on a large community pathology database.

Methods: A computerized pathology database encompassing data from nine community hospitals was used. All D and C- or endometrial biopsy-proven cases of CAH were identified for review. Preoperative biopsy results were then compared with posthysterectomy pathology specimens. Additional data abstracted included patient age, procedure used to establish the CAH diagnosis (D and C vs endometrial biopsy), grade and depth of invasion, and stage (if applicable). Pathology specimen evaluations were conducted at community hospitals. The diagnosis of “complex atypical hyperplasia - cannot rule out invasion” was excluded from the study.

Results: Between 1999 and 2008, more than 2300 endometrial hyperplasia specimens were identified. Of these, 486 women were diagnosed with CAH and 218 women subsequently underwent hysterectomy (with or without staging). The majority of women were diagnosed with endometrial biopsy (76%). One hundred five women (48%) were diagnosed with EC on the final hysterectomy specimen. Forty-nine hysterectomy patients (22%) were diagnosed with at least 50% myometrial invasion and grade 2 disease. Three percent were diagnosed with stage III or IV disease.

Conclusions: In this study, the overall rate of EC in patients with a diagnosis of CAH is consistent with prior literature. However, the rate of EC with clinically significant myometrial invasion and grade of disease is much higher than previously reported, at least in the community-based setting. On the basis of these results, clinicians should discuss the value of surgical staging with these patients if clinically appropriate and feasible. The significant number of patients with at least grade 2 disease and deep myometrial invasion calls for further research to refine management guidelines.

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Does endometrial sampling beyond office biopsy lower the risk of cancer at hysterectomy for women with complex atypical endometrial hyperplasia?

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Objectives: The goal of this study was to determine whether dilation and curettage (D and C) or repeated endometrial sampling improves the ability to detect endometrial cancer among women with a preoperative diagnosis of complex atypical endometrial hyperplasia (CAEH) compared with office endometrial biopsy (EMB) alone.

Methods: Women with CAEH on endometrial sampling who went on to have a hysterectomy within 6 months were identified through a computerized database. Patient age, date of sampling (s), type of sample(s), number of preoperative samples, pathology report(s), date of hysterectomy and final pathology were reviewed. The risk of cancer on final pathology at hysterectomy was determined for the group, and analyzed by mode of sampling and number of preoperative samples.

Results: Of 492 women identified with CAEH on initial endometrial sampling, 51% were ultimately found to have endometrial cancer, 30% had invasive cancer, and 8% had deeply invasive (>50% myometrial invasion) or grade 3 disease. The initial sampling procedure was D and C for 50 women and EMB for 442 women, with 94 women undergoing subsequent D and C after EMB and 53 having a repeat EMB. Of the 147 women who had additional sampling, 64 (45%) were diagnosed with cancer preoperatively as a result. Overall, a D and C alone showing CAEH had a negative predictive value for cancer of 62%, whereas a single EMB alone had a 52% negative predictive value. Additional sampling showing CAEH improved the negative predictive value to 64% for repeat EMB and to 61% for D and C after EMB.

Conclusions: For women with a preoperative diagnosis of CAEH, the ability to detect cancer was better with D and C, EMB followed by repeat EMB or EMB followed by D and C compared with EMB alone. However, despite these procedures, the risk of cancer remains high, with approximately 35% of women still having cancer found at hysterectomy.
Comorbidity determinants of mortality in patients with localized grade 1 endometrial adenocarcinoma: A classification and regression tree analysis approach


Objectives: The goal of this study was to identify comorbid conditions associated with mortality in patients with early-stage, low-grade endometrial adenocarcinoma.

Methods: Using two linked databases (California Cancer Registry and the Office of Statewide Health Planning and Development), we identified all patients with endometrial adenocarcinoma in California who underwent total abdominal hysterectomy between 1991 and 2001. Patients with clear cell and papillary serous carcinoma were excluded. Comorbid conditions were grouped according to the Elixhauser method and identified using a proportional hazard model and then analyzed using classification and regression tree (CART) analysis.

Results: We identified 23,792 patients with a median age of 65 years. The majority of patients had localized disease (67.2%) and 66% had comorbid conditions identified. Patients with distant disease were more likely to have multiple comorbid conditions (>4) compared with patients with localized disease (13.5% vs 7.3%). Variables associated with an increased risk of death included: advanced age, black race, public insurance, congestive heart failure, peripheral vascular disease, neurological disorders, chronic obstructive pulmonary disease, diabetes with complications, renal failure, weight loss, deficiency anemia and cardiac dysrhythmias (all \( P < 0.01 \)). Obesity and hypertension were not associated with an increased risk of death. Risk of death was decreased in those patients with localized stage, grade 1 tumors (<2 cm). We performed a CART analysis on all patients that demonstrated that age is the most important determinant of survival above tumor stage and grade. Using CART we then analyzed patients with localized grade 1 disease (n = 7969) and found that age (>70 years) was most predictive of mortality (29.5%, 683/1632 vs 8.3%, 468/5654). In patients >70 years, the presence of congestive heart failure was associated with 69.8% (74/106) mortality and diabetes with complications was associated with 58.7% (27/46) mortality. In patients <70 years, chronic obstructive pulmonary disease (35.9%, 37/103), followed by diabetes with complications (28.4%, 29/102), was associated with significant mortality.

Conclusions: Advanced age is significantly associated with death in patients with endometrial cancer. Congestive heart failure, diabetes with complications and chronic obstructive pulmonary disease are associated with significant mortality after total abdominal hysterectomy for early-stage, low-grade endometrial cancer. As the ability to identify tumors that will respond to medical therapy improves, we should triage patients at significant risk of mortality away from surgical management.

Reduction of postoperative complication rate with the use of early oral feeding in gynecologic oncology patients undergoing a major surgery: A randomized controlled trial


Objectives: The purpose of this study was to evaluate, after a complex gynecologic oncologic laparotomy including upper abdominal surgery were randomized to receive EOF (in the first 24 postoperative hours) or TOF. The exclusion criteria were divided into (1) preoperative infections, intestinal obstruction, severe malnutrition (weight loss more than 10% within the last three months), ASA score ≥ 4, scheduled total or anterior pelvic exenteration; (2) intraoperative intestinal bowel resection; (3) postoperative admission to the intensive care unit (ICU) for more than 24 hours, benign pathology and final histopathology diagnosis-confirmed nongynecologic disease. A nasogastric tube was placed in all patients until surgery was completed, and then removed. Patients were discharged with strict criteria. Following hospital discharge, patients were followed up weekly for 30 days by telephone. Postoperative satisfaction and intensity of pain referred by patients were assessed using the Visual Analog Scale. Quality of life was assessed using EORTC QLQ-C30 and EORTC QLQ-OV28 questionnaires.

Results: Patients who received EOF had a significantly reduced length of hospitalization compared with patients who received TOF (4.7 days vs 5.8 days, respectively; \( P = 0.006 \)). Eighty-nine percent of the patients in the EOF group tolerated solid food intake on the first postoperative day, with no significant decrease in the incidence of nausea and vomiting (44% vs 56%). The mean level of postoperative satisfaction was significantly higher in the EOF group (82.5 mm vs 70.1 mm, \( P = 0.001 \)). Quality of life scores did not differ significantly between groups. Patients who received TOF had a significantly higher rate of global postoperative complications, 39% versus 17% in EOF group (\( P = 0.003 \), and infectious complications, 14% in TOF group versus 3% in the EOF group (\( P = 0.017 \)). Four events of postoperative ileus were recorded in the TOF group versus one in the EOF group (\( P = 0.367 \)).

Conclusions: EOF after a major gynecologic oncologic laparotomy requiring upper abdominal surgery reduces the length of hospitalization. There is also a clear benefit in terms of the significant reduction in the incidence of global and infectious postoperative complications and a significantly higher level of postoperative satisfaction. On the basis of these findings, the policy of starvation after a complex gynecologic oncologic laparotomy should be abandoned.
Perioperative outcomes comparing patient-controlled epidural with patient-controlled intravenous analgesia in gynecologic oncology surgery


Objectives: The purpose of this study was to compare perioperative patient-controlled epidural analgesia (PCEA) with patient-controlled intravenous analgesia (PCA) after open gynecologic oncology surgery with respect to endpoints including pain management, ambulation, tolerating a regular diet and readiness for discharge.

Methods: In this prospective cohort study, the decision on perioperative pain management was arrived at through patient-centered discussion by anesthesia and surgical teams. Demographic and surgical data, perioperative events, pain scores and postoperative outcomes were recorded. The study was designed to accrue 224 patients to determine equivalence in pain control, defined as less than a 10% difference in the proportion of patients with a Visual Analog Scale (VAS) pain score <2 (0-10 scale).

Results: Two hundred forty patients were enrolled, with 205 patients evaluable for outcomes: 98 received PCA, and 107 received PCEA. Eighty-six patients underwent ovarian/tubal/peritoneal staging/debulking surgery, 49 patients underwent endometrial cancer surgery, 18 patients had cervical cancer, five patients had nongynecologic cancers, and 47 had benign conditions on final pathology. Patients with cancer were more likely to receive an epidural (57% vs 36%, P=0.01). Utilization of PCEA was associated with longer preoperative anesthesia time (60 min vs 44 min, P<0.0001), as well as more likely use of pressors during surgery (78% vs 57%, P=0.002). Surgical time for patients with a cancer diagnosis did not differ (233 min vs 219 min), and postoperative transfer to the intensive care unit was slightly more frequent in the PCEA arm (26% vs 15%, P=0.06). Pain control was comparable in both groups on Postoperative Day one (VAS: 2.4 vs 2.5, P=0.56), but patients with PCEA tended to require more supplemental pain medications. Time to first ambulation was longer in the PCEA patients (49 h vs 36 h, P=0.03), with no difference in time to tolerating a regular diet (89 h vs 77 h, P=0.17) and no difference in readiness for discharge (144 h vs 145 h, P=0.95).

Conclusions: In this nonrandomized prospective study, selection of PCEA for perioperative pain management did not improve pain management for patients undergoing gynecologic oncology surgery.