

and National Society of Genetic Counselors (NSGC) recommend genetic counseling and testing (GC/GT) for 100% of EOC patients.

Methods: We analyzed data from 557 women who were diagnosed with advanced EOC from 2001–2015 treated at a single-center cancer center. Information on demographics and socioeconomic status (age, race, education, marital status, children, insurance type), tumor characteristics (site of origin, grade, stage, histotype, debulking status, platinum sensitivity), treatment (sex of gynecologic oncologist, type of chemotherapy provider, clinical trial enrollment, number of therapy lines), survival (progression-free and overall), and referral to genetics counseling was abstracted from medical records. We used logistic regression models to estimate age-adjusted odds ratios and 95% confidence intervals for referral to genetics counseling according to each variable. Stepwise logistic regression was used to identify the most important predictors of genetics counseling referral, with $p < 0.3$ as the model entry criterion and $p < 0.2$ as the criterion for staying in the model.

Results: Overall, 29% of the ovarian cancer patients had been referred for genetic counseling. Higher educational level, female gynecologic oncologist, clinical trial participation, >1 line of therapy and longer survival were associated with greater likelihood of genetics counseling referral in age-adjusted models. Older age, non-serous histotype, suboptimal debulking status, platinum resistance and medical oncologist as chemotherapy provider were associated with lower likelihood of genetic counseling referral. Ten variables were selected as the most important predictors of referral during stepwise regression: younger age, white race, not having private insurance, professional school education, stage IV vs. III cancer, platinum sensitivity, being treated by a female gynecologic oncologist, having chemotherapy provided by a gynecologic oncologist, clinical trial enrollment, and longer overall survival.

Conclusions: Only 20–30% of EOC patients are referred to GC/GT on a nationwide level and similar results were found at our institution. Unique predictive factors will contribute to quality improvement and should be validated at a multi-institutional level to ensure the gold standard of care is provided to all EOC patients.

doi:10.1016/j.ygyno.2019.03.191

Poster #2

Treatment with paclitaxel causes upregulation in resistance protein tubulin beta III in a type 2 human endometrial cancer cell line

A. Palileo, M. Munoz-Sagastibelza, L. Martello-Rooney. *State University of New York Downstate Medical Center, Brooklyn, NY*

Objectives: The goal of this study is to test the hypothesis that paclitaxel-encapsulated microparticles (PMPs) are a feasible cytotoxic treatment modality in an in vitro model of a Type 2 uterine carcinoma cell line. Poly(lactic-co-glycolic acid)-based (PLGA) microparticles (MPs) are a promising new tool for delivery of cytotoxic chemotherapies. These MPs have the benefit of eluting drugs over a period of weeks for sustained pharmacokinetic effect, which may have a benefit in treating Type 2 endometrial adenocarcinomas that are associated with chemoresistance. Part of this evaluation included evaluating the cell line for resistance to paclitaxel. Overexpression of tubulin beta 3 (TUBB3) has been linked to paclitaxel resistance in many cancers including uterine carcinomas.

Methods: PMPs were prepared using established laboratory procedure to encapsulate 15mM paclitaxel in DMSO using a water/oil/water (W/O/W) method. Blank microparticles (BMPs) were formulated by repeating the process with DMSO only and used as a control. The human endometrial adenocarcinoma type 2 cell line KLE were plated in 6 well plates at a density of 2×10^5 cells and treated with

BMPs and varying volumes of the 15mM PMPs (20, 40, and 60 μ L). Cells were incubated for 6 days then harvested and underwent western blot analysis for cleaved PARP and TUBB3 with GAPDH loading control. Western Blot intensity was compared to controls for significance using t-test.

Results: Cells treated with PMPs showed decrease in cell density with morphologic changes consistent with apoptosis. For PMPs, increasing volumes showed an intensifying effect. Western Blot analysis for cleaved PARP, a byproduct of apoptosis, showed significant 9–17-fold increase in cells treated with PMPs compared to the control group. WB analysis also revealed an absence of TUBB3 in the controls. After treatment with PMPs, there was a statistically significant increase in TUBB3 for 40 μ L ($p = 0.02$) and 60 μ L ($p = 0.01$). There was an increase in TUBB3 at 20 μ L of PMPs, but this did not show significance ($p = 0.09$)

Conclusions: PLGA encapsulated paclitaxel is a feasible method to deliver cytotoxic chemotherapy in an in vitro model, as evidenced by gross morphologic changes and activation of apoptosis. This study also represents the first demonstration biochemically of upregulation of a resistance marker for paclitaxel as a response to treatment in a cell line that is negative for tubulin beta 3 prior to treatment.

doi:10.1016/j.ygyno.2019.03.192

Poster #3

Does A1c predict surgical complications? A retrospective chart review of patients with Type II Diabetes Mellitus and Endometrial Cancer

A. Straubhar^a, M. Dodson^b, K. Szczotka^a, S. Soisson^c, P. Soisson^b. ^aDepartment of Obstetrics and Gynecology, University of Utah, Salt Lake City, UT. ^bDivision of Gynecologic Oncology, Huntsman Cancer Institute, University of Utah, Salt Lake City, UT. ^cDivision of Genetic Epidemiology, Department of Internal Medicine, University of Utah Health, Salt Lake City, Utah

Objectives: The purpose of this study is to determine if patients diagnosed with Endometrial Cancer (EC) and Type II Diabetes Mellitus (DMII) are at increased risk for postoperative complications when compared to EC patients without DMII, and if preoperative A1c level influences risk.

Methods: This retrospective chart review included all women with EC ICD9 codes who underwent surgery and had follow up within 3 months at one of our facilities between Jan 2009– May 2017. Exclusion criteria included use of neoadjuvant therapies, and patients with a diagnosis of prediabetes receiving treatment. We defined DMII via past medical history documentation, an A1c > 6.5% at any time, or a day of surgery fasting blood glucose >126 mg/dL. We extracted A1c levels within 90 days of the surgery date to assess correlation with post-operative outcomes based upon A1C <8.0% and A1C \geq 8.0%. We used EC patients without DMII as controls. Post-operative complications included readmission, transfusion, urinary tract infection, wound infection, wound dehiscence, wound seroma, wound hematoma, intrabdominal hematoma, facial dehiscence, vaginal cuff dehiscence, vaginal cuff infection, intrabdominal abscess, ileus, fever, VTE, psychosis, pneumonia, recurrence of disease, and mortality. Complications are listed in table 1 and were manually extracted from chart review. Multi variable models were used to compare the groups.

Results: We included 400 women with EC: 86% had Type I disease and 85.4% were Stage I. Overall, 44% of cases were laparotomies and 56% were laparoscopic. DMII was diagnosed in 29% (n=114) cases. In patients with DMII, 51% (n=58) of cases were laparoscopic and 49% (n=56) were laparotomies. DMII patients who underwent laparotomies were at significant risk for overall complications (OR 4.97, 95% CI: 1.96–12.64) and infectious/wound complications (OR 5.32, 95% CI:

1.94–14.56) after adjusting for age at diagnosis, BMI, stage, and grade. Patients with DMII with A1c ≥ 8.0 appeared to be at higher risk of complications but this did not reach significance (OR: 2.47 95% CI: 0.81–7.54), though this pilot study is likely underpowered to estimate this effect.

Conclusions: Women with EC and DMII who undergo laparotomies are at significant risk of complications when compared to laparoscopic procedures. A1c levels alone do not correlate with increased risk of post-operative complications, as age and BMI are confounders.

doi:10.1016/j.ygyno.2019.03.193

Poster #4

Experience of gynecologic oncologists regarding endometrial ablation patients who develop endometrial cancer

A.M. Saiz, H. Chen, A.M. McCausland, V.M. McCausland, G.S. Leiserowitz. *Department of Obstetrics and Gynecology, University of California Davis, Sacramento, CA*

Objectives: To understand the current experience of gynecologic oncologists in managing patients with endometrial cancer (EC) after endometrial ablation.

Methods: A 17-question survey was sent out to Society of Gynecologic Oncology (SGO) members from Full, Associate, Candidate and Fellow-in-Training membership categories. Responses were collected from November 2017 to January 2018. The questionnaire asked SGO members about their experience in caring for women who have a history of post-ablation EC.

Results: 138 of the 1299 gynecologic oncology SGO members responded, with a 10.6% response rate. 116 out of 138 respondents (84.1%) completed the entire survey. Most (70.4%) reported that endometrial ablations were performed “sometimes” or “frequently” in their communities. 93.8% of gynecologic oncologists had been referred symptomatic post-ablation patients for further evaluation. 18.5% reported managing over 20 post-ablation patients in their practice. Most respondents found that post-ablation intrauterine scarring made accurate evaluation of the endometrial cavity “moderately” (36%) or “extremely” (48%) difficult. 52.5% reported that a majority of symptomatic post-ablation patients require hysterectomy to make an accurate diagnosis. While 74.4% of respondents thought that at least some patients had a delay in diagnosis of EC due to post-ablation intrauterine scarring, 21.4% believed that the majority of patients had a delay in diagnosis. Finally, 79.5% reported that they do not believe that there is a role for prophylactic endometrial ablation to decrease the risk of endometrial cancer.

Conclusions: This study is the first to describe the current views of gynecologic oncologists in treating post-ablation EC. Most believe that post-ablation intrauterine scarring can make diagnosis of EC more difficult and delayed. Although further research is needed, this study provides a glimpse at some of the long term consequences of endometrial ablation.

doi:10.1016/j.ygyno.2019.03.194

Poster #5

Outcomes after implementation of an enhanced recovery pathway with major gynecologic oncology surgery at a Tertiary Care Center

A. Hari, P. Akametalu, C. Lee, G. Eilon, N. Bansal, M. Canneson, J. Cohen. *University of California Los Angeles, LA, CA*

Objectives: To examine the impact of an enhanced recovery after surgery (ERAS) pathway in patients undergoing exploratory laparotomy due to suspected or known gynecologic malignancy.

Methods: This was a case-control study. The ERAS protocol pathway included preoperative counseling, tight glucose control, goal directed fluid therapy, standardized analgesic and anesthetic regimens, early mobilization, and prophylactic prevention of nausea and vomiting. Consecutive patients undergoing exploratory laparotomy at the University of California Los Angeles (UCLA) between March 2017 and February 2018 with known or suspected gynecologic malignancy were included in this study. A patient match study design was used to compare clinical outcomes along the following parameters: age and type of surgery. Patients in the control arm underwent surgery at UCLA between July 2014 and June 2016. Patients with significant post-operative complications (anastomotic leak and hospital acquired pneumonia) or with a history of chronic pain were excluded from the study. Clinical outcomes measured included length of stay, American Society of Anesthesiology (ASA) physical status classification, emergency department (ED) visit within 30 days of surgery, estimated blood loss (EBL), intraoperative blood transfusion, Post-Anesthesia Care Unit (PACU) nausea/emesis, and postoperative day 1 (POD1) pain control.

Results: When comparing 32 ERAS patients to 96 historical controls, the average length of stay was significantly reduced (3.91 compared with 5.31 days; $P = 0.0073$). ASA scores between the two cohorts were similar (2.38 compared with 2.54; $P = 0.1464$). Although not statistically significant, ERAS patients had a lower percentage of patients who were seen in the ED within 30 days of surgery (6.2% compared to 11.4%; $P = 0.5155$). EBL was lower in ERAS group compared to historical controls although not significant (324 mL compared to 474 mL; $P = 0.0559$). The percentage of patients requiring blood transfusion during surgery was lower in ERAS patients but not significant (6.6% compared to 19.7%; $P = 0.2784$). The ERAS and control groups had similar rates of PACU nausea/emesis (12.5% vs. 19.7%; $P = 0.4340$) and POD1 pain scores (average 1.78 vs. 2.19; $P = 0.3109$).

Conclusions: The ERAS protocol in patients with suspected gynecologic malignancy reduced length of stay by almost 2 full days. Although not significant, the ERAS protocol shows a trend toward decreased EBL and 30-day readmission rate in this case-control study. Further evaluation of the ERAS pathway is warranted for patients with suspected gynecologic malignancy undergoing exploratory laparotomy at tertiary care centers.

doi:10.1016/j.ygyno.2019.03.195

Poster #6

Comparing usage of a running, barbed, polydioxanone suture vs. interrupted, braided polyglactin 910 suture for the closure of vulvar incisions in Gynecologic Oncology

K. Kremer, E. Drobnis, M. Hunter. *University of Missouri, Columbia*

Objectives: Vulvar cancer is a rare malignancy accounting for 5% of gynecologic cancers. Wound complications following surgery for vulvar dysplasia and cancer, including incisional breakdown, have been reported to occur in 9–58% of cases. There is sparse research on techniques to prevent incision breakdown. Barbed, polydioxanone suture has been shown to be effective in vaginal cuff closure. This technique has not been evaluated in the closure of vulvar incisions. This study evaluated the use of barbed, polydioxanone suture in vulvar surgeries as compared to braided polyglactin 910 suture.

Methods: A retrospective chart review of vulvar surgeries at one institution from August 2008 to August 2017 was performed, comparing incisional complications using a running, barbed, polydioxanone (Quill) suture versus an interrupted, braided, polyglactin 910 suture.

Results: There were 173 vulvar surgeries performed in the study period. Ages of patients ranged from 17 to 92. Dehiscence was demonstrated