Summary of the 2011 Annual Meeting on Women's Cancers

The 2011 Annual Meeting on Women's Cancers was held in Orlando, Florida from Friday March 5 to Wednesday March 9. The document below outlines only some of the interesting materials presented during the scientific sessions of the meeting. Seminal Abstracts were again presented at this year's meeting. These represent important studies in our field that have previously been presented at National and International meetings. While not specifically reviewed here they are referred to when augmenting presented material at the 2011 SGO meeting. The summary below is presented thematically and the abstract numbers are as referenced in Gynecologic Oncology Volume 120, Issue 1, Supplement 1, March 2011, edited by Daniel Clarke-Pearson, MD and Robert Bristow MD, MBA.

The Hugh Baber Award lecture was presented to Dr. Parham for work done in Zambia related to cervical cancer in HIV-infected women. This inspiring presentation outlined a programmatic evaluation of the first-ever large-scale public sector cervical cancer prevention program in Africa. Nurses were trained to conduct screening with visual inspection, aided by digital cervicography to facilitate same-visit cryotherapy for probably in situ lesions or referral for further diagnosis. Over 21,000 women were screened from 2006 to 2008. Sixteen percent of women with HIV referred for further diagnosis were found to have invasive cervical cancer, 69% of which were early stage. Using conditional probability modeling, it was estimated that the program prevented 142 cervical cancer deaths (range: 96–238) in 6572 HIV+ women, or 1 cervical cancer death prevented for every 46 women screened. This work demonstrates the results of concerted efforts for cervical cancer prevention programs, coordinated with HIV/AIDS care programs and serves as a platform for future programs (Abstract 4).

A seminal abstract previously presented at the International Gynecologic Cancer Society describes the use of another strategy for treatment of pre-invasive cervical disease: photodynamic therapy (PDT). Focused on developing less extirpative methods of treating non-invasive disease the authors described using PDT for CIN3 and early stage cervical cancer. 520 cases (including 342 carcinoma in situ and 24 micro-invasive lesions) were treated with a complete response rate of 97% following single PDT procedures (99% CR for dysplasia, 97% for MIC and 92% for invasive lesions). This demonstrates emerging strategies for treatment of pre-invasive and early invasive disease that might effectively be applied to at risk populations.

Practice patterns

An analysis of the use and sequencing of surgery and chemotherapy in women in the Medicare population with advanced ovarian cancer was conducted. This study used data from a SEER-Medicare data linkage. After exclusion criteria were applied, the study comprised 8211 women over age 65 diagnosed with stage III/IV ovarian cancer from 1995 to 2005 who were not enrolled in an HMO. Treatment data were extracted from billing claims. 59% underwent primary debulking surgery, 24% had primary chemotherapy and 17% had no evidence of treatment. Over the study period from 1995 to 2005 there was a trend toward increasing use of primary chemotherapy and a decrease in the proportion of patients having primary surgery. By multivariate analysis increasing age (>75 years), stage and higher comorbidity score are strongly associated with the receipt of primary chemotherapy. African American women are more likely to receive primary chemotherapy and women having endometrioid and clear cell histology being less likely to get primary chemotherapy than those with serous tumors. Among women receiving primary surgery, only 76% had evidence of chemotherapy following surgery and 55% of women had evidence of at least 6 cycles of chemotherapy. Among women receiving primary chemotherapy only 32% had evidence of ovarian cancer directed surgery in the year following diagnosis. In summary only 1 out of 3 advanced ovarian cancer patients over 65 are treated with standard of care including initial surgical cytoreduction followed by 6 cycles of chemotherapy. However, overall 52% of patients received both chemotherapy and surgery and over time more patients received both treatment modalities. More analyses are required to explain why African Americans are more likely to receive only chemotherapy and why the rate of initial debulking is declining over time (Abstract 2).

Identification of predictors of primary care physician referral to gynecologic oncologists. A 12-page survey booklet with various clinical vignettes, demographics, and practice characteristics was distributed to 3200 primary care physicians. A financial incentive was provided and there was a 61.7% participation rate. With the scenario of a patient with a suspicious ovarian mass <50% of Family Medicine and Internal Medicine physicians would refer directly to a gynecologic oncologist. The predictors of direct referral were patient insurance, and physician characteristics such as gender, specialty, practice location and patient volume. Two thirds of Gynecologists would refer directly to a gynecologic oncologist. The 1/3 that would perform surgery themselves, 86% indicated that they would have a gynecologic oncologist available. The study design did not permit an evaluation of whether the patient's social, economic and educational statuses influence their doctors' referral practice (Abstract 10).

Does compliance with National Comprehensive Cancer Network (NCCN) guidelines correlate with improved survival in ovarian cancer patients? This represented a population study of 144,449 patients from the National Cancer Data Base (NCDB) and was an important project from the Society of Gynecologic Oncologists (SGO) Quality and Outcomes Committee. The NCDB collects data on approximately 70% of all newly diagnosed cancer patients in the United States. Records from NCDB for cases from 1998 to 2007 were made available after application by the SGO Quality and Outcomes Committee. Adherence to NCCN guidelines by stage and grade was evaluated with respect to treatment received and considered within the context of stage (i.e., early stage required full surgical staging, stages IC–IV included both surgery and chemotherapy). Survival data was available for
cases from 1998 to 2002. The study included 144,449 cases, reduced to 96,802 after exclusion due to inadequate information to assess compliance. Overall only 43% of women received care consistent with NCCN guidelines. For roughly 50% of cases with mature survival data, non-adopter care was significantly associated with reduced survival (HR = 1.44). The improved survival with care consistent with guidelines was seen for all subtypes of disease. Future analysis of this dataset will help to identify the underlying reasons for non-adopter care (Late Breaking Abstract 1).

Prevention/screening/early detection

Efficacy of the AS04-advuanted HPV-16/18 vaccine in reduction of abnormal cytology, colposcopy referrals and cervical excision therapies: PATRICIA (papilloma trial against cancer in young adults) end-of-study results. Women aged 15–25 years were randomized to receive HPV-16/18 vaccine (N = 9319) or control (Hepatitis A vaccine) (N = 9325). The total vaccine cohort that was HPV naive was 11,644. This cohort approximates HPV-naive adolescents, the primary target population for public health organized vaccination programs. The primary objective of this study was vaccine efficacy (VE) against cervical intraepithelial neoplasia (CIN)2+/ lesions associated with HPV-16 or 18 in women HPV DNA-negative for the corresponding HPV type at baseline. Presented at the meeting were 1. the VE against abnormal cytology (atypical squamous cells of undetermined significance [ASC-US] or greater [+] associated with HPV-16/18 irrespective of HPV type, 2. reduction of cervical excision therapies and 3. impact of vaccination on the rates of colposcopy referrals based on the protocol-specified clinical management algorithm. In particular for the HPV naive cohort the AS04-advuanted HPV-16/18 vaccine showed significant vaccine efficacy against cytological abnormalities (e.g. ASC-US or greater) associated with HPV-16 and/or HPV-18. Irrespective of the HPV DNA type found in the cervical sample, there was a 91.9% reduction (95% CI 88.8–94.3) in cytological abnormalities. There was a significant reduction of 29.0% (95% CI 21.6–35.8 in colposcopy referrals). After vaccination there was a 70.2% reduction in cervical excision therapies (95% CI 57.8–79.3) (Abstract 35).

Cervical cancer screening in the elderly patient. SEER data were used to compute incidence rates for cervical carcinoma from 2000 to 2006 by age and stage. Over 18,000 cases were identified and 12.2% of these occurred in women >70 years old. In contrast to younger age groups, the older cases were more frequently diagnosed with stage IIIIB disease (19.2%), and only 41% were diagnosed with surgically treatable disease. The authors concluded that the change in screening guidelines may result in an increased incidence in cervical cancer in women over the age of 70. While a large population based study, the SEER database introduces significant limitations. Additionally it is estimated that roughly half of the elderly cases would never have had any PAP screening and that 10% had no screening in 5 years — which would be outside current screening guidelines. The implications of the study and its review were that women over 70 years old be carefully assessed for both ongoing and new risk factors and past screening history and to tailor screening based on those factors (Late Breaking Abstract 5).

Common single nucleotide polymorphisms (SNPs) in the BNC2, HOXD1 and MERIT40 regions contribute significantly to racial differences in ovarian cancer incidence. Rare high penetrance gene variants e.g. BRCA1/2 and HNPCC are responsible for about 10% of ovarian cancers. Common low penetrance gene variants may be responsible for 10–20% of ovarian cancers. This study was conducted to determine whether racial variations in the aforementioned SNPs identified by the Ovarian Cancer Association Consortium (OCAC) may contribute to differences in ovarian cancer incidence between US Blacks and Whites using specimens collected by the Ovarian Cancer Consortium. HapMap data was used to compare the allele frequency of the ovarian cancer susceptibility SNPs for those of African ancestry from the Southwest US with individuals of Northern and Western European ancestry from Utah. The frequency of the protective allele is substantially higher in Blacks; for the BNC2 SNP, the protective allele frequency for Blacks is 58% compared to 37% for Whites; for the HOXD1 SNP, the protective allele frequency is 91% in Blacks compared to 64% in Whites; and for the MERIT40 SNP, the protective allele frequency in Blacks is 89% compared to 79% in Whites. The contribution to racial differences in incidence was 7.2% for BNC2, 8.1% for HOXD1 and 2.3% for MERIT40. Overall, racial differences in allele frequencies of these three SNPs were calculated to potentially account for 17.6% of the difference in ovarian cancer incidence (Abstract 12).

Ovarian cancer

This is a prospective analysis of potential risk factors for grade ≥2 GI adverse events (AEs; perforation, anastomotic leak, fistula, necrosis, or hemorrhage) in a GOG phase III randomized trial of bevacizumab in first-line therapy of advanced epithelial ovarian cancer, primary peritoneal cancer, or fallopian tube cancer. The factors that predisposed to GI AEs are treatment for inflammatory bowel disease HR 13.4 (95% CI 3.4–52.3), large bowel resection at primary surgery HR 2.05 (1.09–3.88) and small bowel resection at primary surgery HR 1.95 (0.89–4.25). There was a trend toward increased risk of a GI AE in patients (n = 74) who developed febrile neutropenia: HR 2.55 (95% CI 0.60–10.74). The risk of GI AEs is not associated with age, baseline performance status, stage/debulking, interval between surgery and systemic therapy or a history related to vascular disease (Abstract 7).

Use of PARP inhibitors in BRCA-deficient and sporadic ovarian cancer. MK-4827, a selective PARP inhibitor was administered once daily in a phase I/II dose escalation study in both BRCA-deficient and platinum-resistant high grade sporadic ovarian cancers. The study objectives were to determine DLT and MTD and a preliminary assessment of anti-tumor activity in patient with homologous recombination defects. MTD was established at 300 mg, with DLT with grade 4 thrombocytopenia and grade 3 pneumonitis and fatigue. However, pharmacodynamic studies indicated PARP inhibition at doses over 80 mg. There were 11 patients (of 59) with partial responses (range: 75–483 days) and 4 with stable disease (136–354 days). All responses were in either BRCA + cases or those classified as unknown. This was an effective demonstration of MTD and effective concentration of this PARP inhibitor using pharmacodynamics and suggests which patients are most likely to be the best candidates (Abstract 8).

A similar study was summarized as a seminal abstract, previously presented at the 2010 ASCO meeting entitled “Can we define tumors that will respond to PARP inhibitors? A phase II correlative study of Olaparib in advanced serous ovarian cancer and triple-negative breast cancer”. Using 400 mg twice daily dosing BRCA + and BRCA-/unknown cancers were assessed for the primary endpoint of objective response rates (ORR) A by RECIST and progression free survival (PFS). ORR was 41% in the BRCA + group but also in 24% of BRCA-/unknown cases. Median PFS was 219 days for the ovarian cohort. This was the first study demonstrating efficacy of single agent PARP inhibitor in non-BRCA + cases. It also importantly demonstrated the feasibility of performing biopsy of tumor throughout the study to conduct pharmacodynamic studies, something commonly thought not feasible in ovarian cancer studies.

A final study gave some insight into PARP inhibition and BRCA-ness of ovarian cancers in patients not tested or considered high risk. This late breaking abstract used next generation sequencing methods to identify novel ovarian cancer susceptibility genes. Using a previously validated genomic assay for 22 breast and ovarian cancer genes, 190 consecutive cases of ovarian, tubal, and peritoneal cancers are screened. All suspected deleterious mutations were confirmed with traditional methods. Twenty-two percent of cases had clearly...
deleterious germline mutations in BRCA1/2, BRIP1, TP53, CHK2, PALB2, RAD50 and MSH6. Additional missense mutations in other DNA repair genes are being analyzed further, so that may be a conservative estimate. Overall this study identified a much larger fraction (22.6%) of hereditary predisposition to ovarian cancer than previously suspected, including a significant proportion with mutations in genes not currently linked to ovarian cancer. This effectively demonstrates the cost-effectiveness of such an approach, and ties in well with advanced in gene-specific therapies such as PARP inhibition to most effectively identify subgroups of patients most likely to benefit (Abstract 37).

Efficacy of influenza vaccination in women with ovarian cancer. Current CDC recommendations include that patients undergoing chemotherapy receive flu vaccination – despite little evidence to support efficacy or its immunogenicity in cancer patients. Seasonal trivalent vaccine was administered on day one of a chemotherapy cycle and serum was analyzed for antibody titers (hemagglutination inhibition (HAI)). Only 3%, 10% and 0% were able to mount a sustained HAI antibody response to the 3 strains included in the vaccine, respectively. However, roughly 40% of patients had pre-existing titers >1:40 at baseline, before vaccination. The authors concluded that patients undergoing active chemotherapy for ovarian cancer are almost uniformly unable to mount a meaningful response to flu vaccination. As this issue has important cost (population costs), and efficacy implications (delivery therapy that is ineffective) future studies should examine the role of baseline titer, role of timing of vaccination with chemotherapy and need for booster vaccines (Abstract 30).

An exciting seminal paper was reviewed, previously presented at 2010 ASCO, describing the results of a prospective ovarian cancer screening study using the ROCA (risk of ovarian cancer algorithm). Women aged 50–74 participated using annual CA-125 testing. Based on ROCA results women were triaged to next annual CA-125, repeat CA-125 or transvaginal ultrasound and referral to gynecologic oncologist. Over 3000 women were studied over 8 years with an average rate of referral for TVS and gyn oncology of less than 1%. The positive predictive value was 37.5% and specificity was 99.7%. Importantly, in addition to high specificity and low rates of referral, all invasive cancers identified were early stage. We look forward to results from the UK Collaborative Trial of Ovarian Cancer Screening for mortality endpoints and confirmation of these results.

Uterine corpus cancer

The incidence of nodal metastasis in endometrioid endometrial cancer risk groups was evaluated using a post-hoc analysis from GOG-LAP2 study to validate previously suggested guidelines to predict risk of nodal spread. The subjects were 2516 women enrolled from 1996 to 2005 with endometrioid histology on final pathology. Low risk subjects were those who met all the following criteria modified from the Mayo Clinic’s criteria based on final pathology report; grades 1–2, depth of invasion <50% and tumor size <2 cm. Nodal metastases were present in 0.8% of low risk and 10.7% of high risk subjects (95% CI: 1.67–23). This provides criteria to help guide treatment planning for reoperation in patients with incomplete surgical staging information (Abstract 5). A second study from Duke and University of Virginia evaluated the same guidelines in 442 cases of endometrial cancer with similar results. Considering the 110 patients who met criteria as low risk for nodal involvement, the negative predictive value using his model was 98.2% (Abstract 76).

The role of lymphadenectomy in endometrial cancer, and specifically how it is studied, was addressed by examining the design of the ASTEC study: this presentation generated perhaps the most floor discussion outside of the annual business meeting! Data from multiple models were used to predict LN spread and effects of treatment of various subgroups. The decision model was then applied to the ASTEC cohort, and future trial designs to ask if the appropriate design and inclusion criteria are being utilized. The model effectively predicted ASTEC survival for low- and intermediate-risk groups (≤4% difference). Importantly, even if a 70% survival advantage was conferred by identifying, removing and treating involved nodes, there would have been a survival difference of less than 2% overall in both low and intermediate risk groups studied in ASTEC. If future designs emphasize intermediate risk patients the model predicts an overall survival difference of 10% with significantly reduced sample size needed (Abstract 39).

Prospective Phase II Trial of adjuvant pelvic radiation “sandwiched” between combination paclitaxel/carboplatin chemotherapy in women with uterine papillary serous carcinoma (UPSC). 82% of women in this study had early stage disease and the study was conducted over a ten year period. Patients received paclitaxel 175 mg/m² + Carboplatin AUC 6.5–7.5 repeated every 21 days for 3 cycles. This was followed by daily fractions of 1.8 Gy dose for a total dose of 45 Gy, three weekly brachytherapy treatments for a total dose of 15 Gy concluding with the administration of paclitaxel 175 mg/m² with carboplatin AUC 6–6.5 repeated every q21 days x 3 cycles. 81 patients were enrolled and 65 completed the full prescribed therapy. Of the 72 patients who received at least 3 cycles of chemotherapy the overall PFS and OS for stage I and II patients was 65.5 ± 2.3 and 76.5 ± 4.3 months, respectively. For the patients with stages II and IV the overall PFS and OS was 25.8 ± 3.0 and 35.9 ± 5.3 months, respectively. This study helps us to move forward in the search for an effective therapy for this disease type (Abstract 21).

Incidence of and risk factors for surgical complications following open or laparoscopic surgery for stage I endometrial cancer from the randomized LACE trial recruitment was from 20 centers in Australia, New Zealand, Hong Kong and Scotland. Inclusion criteria included endometrioid cell type, clinical stage 1, and uterine size less than 10 weeks. Randomization was stratified by site, grade and personal history of cancer. LACE enrolled 760 patients with endometrial cancer from 2005 to 2010. Complete follow-up data are available for 694 patients. Lymph node dissection occurred in 350/694 (50.4%). There were 28/760 (3.7%) 5 from TAH to TLH. Serious adverse events were more likely in the TAH subjects OR 2.029 95% CI (1.319–3.120). This study, in addition to GOG LAP2 provides move support toward the laparoscopic treatment approach for the management of early endometrial cancer (Abstract 22).

Vulvar cancer

GOG 205; a phase II trial of radiation therapy and weekly cisplatin chemotherapy for the treatment of locally-advanced squamous cell carcinoma of the vulva not amenable to surgical resection via radical vulvectomy. This was the first presentation of the study. The endpoint of this study was complete pathological response. A two stage accrual plan was designed with an anticipated total recruitment of 58 women. The total radiation therapy dose was 5760 Gy. It was administered as a single daily fraction 180 Gy for 32 fractions without a scheduled treatment break. This radiotherapy does is a high pre-operative dose (usually 45–50 Gy) but is low for a radical dose (usually 65–70 Gy). Cisplatin 40 mg/m² was administered weekly during radiation. 40/58 (69%) completed planned treatment; the toxicities encountered were hematologic, dermatitis, pain, and metabolic alterations. 37/58 (64%) had a complete clinical response, among these there were 34 who underwent surgical biopsy who also had a pathologic complete response. Survival data is pending as is quality of life and functional outcomes. However, it begs the question, is weekly cisplatin with concurrent radiation to 57.6 Gy pre-operatively the new standard of care for locally advanced vulvar cancer (Abstract 1)?

SGO Business Meeting

John Curtin, MD President of SGO 2011–2012, presented the Society’s strategic plan. The forces of change require establishing and sustaining
SGO’s global role and focus, recruiting, satisfying, and retaining a growing number of members in all categories, identifying roles and benefits of an “ideal foundation” in SGO’s structure, increasing and diversifying revenue streams to strengthen SGO’s economic model and successfully identifying, selecting, and developing SGO’s next generation of leaders. The strategic goals of the Society of Gynecologic oncology are as follows. 


The nomination committee slate voted in by those present at the business meeting is composed of: Council Members Nadeem Abu-Rustum, MD, David Cohn, MD and R. Wendel Nauman, MD, Candidate Representative Troy Gatcliffe, MD, Fellow-in-Training Representative Kristy Ward, MD, Vice President: Steve Rubin, MD, and President Elect II: Barbara Goff, MD, congratulations to them all.

American Cancer Society Lectureship

“Quality assessment, quality improvement and the SGO” was delivered by Bruce Hall, MD, Ph.D., M.B.A. Dr. Hall gave a compelling overview of challenges facing us in demonstrating quality and establishing appropriate metrics to distinguish the level of care we provide but also to risk-adjust the level of acuity of our patients. He made the premise that payors, including government, increasingly want to know if we are providing the best care and cited that currently his institution, Washington University, is required to provide metric data on 89 performance measures to CMS and other quality oversight groups: a number to grow to 320 in 2012. This daunting reality will face all hospitals, with overall roughly 5–10% of revenue to come under performance metric pressure in the next few years. With that backdrop he explained current NSQIP approach to quality improvement and measurement and encouraged SGO membership to learn more about this approach and to be actively involved in helping structure variables relevant to SGO, an effort ongoing within the Clinical Practice and Quality committees of SGO. A recurrent theme to addressing how to assess quality in our specialty was to: 1) limit scope; 2) focus attention; and 3) target efforts cohesively.

Presidential address

Daniel Clarke-Pearson, MD delivered a succinct and clear message to the Society entitled Sustaining the Momentum of the “SGO Flywheel”. This presentation will be published in a separate document.

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