The theme for the 2009 ASCO annual meeting is "Personalizing Cancer Care." This meeting provided an exemplary forum for the dissemination and discussion of cutting-edge scientific and educational developments in oncology with a focus on personalized cancer care.

In the field of gynecologic cancer, 96 abstracts were presented in the 2009 ASCO (1 in Plenary Session, 8 in Oral Abstract Session, 25 in Poster Discussion Session, 59 in General Poster Session, and 3 in Clinical Science Symposium). The key topics selected by the Scientific Committee were presented and discussed in the Oral Abstract Sessions as well as a Plenary Session. Herein, I'd like to introduce these abstracts to the readers briefly.

Among these, the most notable study was to evaluate whether there were survival benefits from early treatment based on a raised CA-125 alone in patients with ovarian cancer. A total of 1,442 patients registered from 10 countries between 1996 and 2005. If CA-125 levels exceeded twice the upper normal limit, patients were randomized to either immediate treatment or to remain having blinded CA-125 measurements with treatment commencing when clinical or symptomatic recurrence appeared. Among the total, 527 patients with marker only disease were randomized (264 immediate and 263 delayed). Second-line chemotherapy started at a median of 5 months earlier in the immediate arm. However, there was no difference in overall survival between the two groups. Therefore, routine measurement of CA-125 in the follow-up of ovarian cancer patients did not provide any value in improving overall survival (abstract #1). This study was presented in the Plenary Session, which includes the abstracts having practice-changing findings.

The Oral Abstract Session started with two abstracts addressing in vitro chemo-response assays. In 405 consecutive patients with endometrial cancers, the in vitro tumor response rates by the ChemoFx assay were similar to the published population treatment response rates. The researchers concluded that such a method can provide clinically useful information to optimize individual chemotherapy regimens for patients with endometrial cancer (abstract #5503). A retrospective study for evaluating the utility of EDR assay in 377 patients with epithelial ovarian cancer (EOC) showed that this assay did not independently predict or alter the outcomes of patients with EOC, who are treated with the current standard of care in either the primary or recurrent setting (abstract #5504).

The next two topics presented were regarding sentinel nodes (SN); In GOG 173, which is a validation study of SN biopsy in vulvar cancers, 510 patients with vulvar cancer were enrolled from Dec 1999 to Dec 2008. From 445 patients whose data review was completed, SN was successfully identified in 78.8% (67/85) of patients using blue dye only, and in 96.2% (306/318) using combination of radiolocalization and blue dye. Confirmed results for the entire cohort will be reported (abstract #5505). The French study aimed to measure the benefits from SN detection in cervical cancer in terms of nodes collected from unusual territories and of detected micrometastases (0.2 to 2 mm) and isolated tumor cells (<0.2 mm). One or more SNs were detected in 98.4% of 128 patients studied. SNs were thoroughly examined for metastases using 200 μm microcut and immunohistochemistry with anti-cytokeratin antibodies. SN detection supplied additional information in 39.8% of patients (51/128), either showing that drainage occurred via unusual pathways, or detecting cancer spread via immunohistochemistry (abstract #5506).

The effect of concurrent CCRT with weekly gemcitabine (Gem) plus cisplatin (Cis) followed by adjuvant triweekly Gem plus Cis in locally advanced cervical cancer (IIB-IVA) was compared with the current standard therapy (concurrent CCRT with weekly Cis). This multinational phase III study enrolled 515 patients. This novel regimen significantly improved PFS at 3 years (74%) compared to 65% of the control group. However, grade 3/4 toxicities were significantly increased in groups treated with this novel regimen (abstract #5507).

Two phase III studies to evaluate the efficacy of liposomal doxorubicin instead of paclitaxel in first-line and second-line
settings in ovarian cancer were presented. MITO-2 (Multi-centre Italian Trials in Ovarian Cancer) compared carboplatin plus stealth liposomal doxorubicin (CLD) versus carboplatin plus paclitaxel (CP) as the first-line chemotherapy in patients with advanced ovarian cancer (IC-IV). A total of 820 patients were randomized, 410 to each arm. CLD as first-line treatment produced similar activity, with a different toxicity profile, compared to CP. Hematologic and skin toxicities were common in CLD, but hair loss and neurotoxicity were common in the CP group. Required events are awaiting for final PFS analysis (abstract #5508). The CALYPSO study of the Gynecologic Cancer Intergroup (GCIG) was to compare efficacy and safety of CLD and CP in relapsed platinum-sensitive patients. A total of 976 patients were enrolled, 467 to the CLD arm and 509 to the CP arm. This trial showed significant superiority of CLD in terms of PFS (11.3 mo vs. 9.4 mo, p=0.005). In addition, compared to CP, CLD was well tolerated with lower rates of severe and long-lasting (neuropathy) toxicities (abstract #5509).

Randomized phase III trials (AGO-OVAR-9) to evaluate the additional benefit of gemcitabine added to paclitaxel-carboplatin (TC) as the first-line treatment of ovarian cancer did not show improved efficacy in patients with stage I-IIA disease (N=175). The researchers previously reported similar results in patients with stage IIB-IIIC. They concluded that the addition of gemcitabine to first-line TC cannot be recommended (abstract #5510).

The last three topics in the Oral Abstract Session were late-breaking abstracts. These are especially notable, so these will be presented again in Best of ASCO® International together with the topic in the Plenary Session (abstract #1).

Space limitations prevent a fuller description of the numerous excellent abstracts in other sessions. The reader is referred to the May, June 2009 Supplement to Journal of Clinical Oncology for more details. The reader can experience the 2009 ASCO Online through the Virtual Meeting. The 2010 ASCO annual meeting is scheduled for June 4-8 in Chicago, USA.