

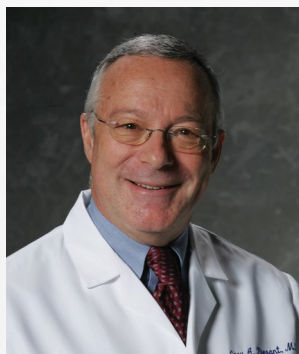
cancer 1. a malignant growth or tumor caused by abnormal and uncontrolled cell division. 2. the disease resulting from this. 3. an evil influence that spreads dangerously. [Latin: crab, creeping tumour]- cancerous adj



Highlights of ASCO 2013

Thoughts from a community oncologist

BY CARY A. PRESANT, MD, FACP, FASCO



The American Society of Clinical Oncology (ASCO) meeting was again held in Chicago this year amid often cloudy and stormy skies (at least the tornadoes stayed away). While there were no responses of “Oh my, gosh!” from people who attended the meeting, very substantial progress was reported. Following are the highlights as I saw them during my time at

ASCO 2013. In my opinion, many of these findings will influence practice patterns, change attitudes toward patient care, and improve patient outcomes.

Breast Cancer

- *Abstract 513* (N. Lin et al.) demonstrated that carboplatin plus bevacizumab is active in brain metastases with a 47% response.
- *Abstract 5* (R. Gray et al.) reviewed the ATTOM and ATLAS trials. The study found that 10 years of tamoxifen was preferable to 5 years of tamoxifen, with a reduction in recurrence rate, HR (hazard ratio) 0.75, $p=0.0001$, and

a reduction in mortality after 10 years, hazard ratio 0.75, $p=0.002$. The mortality after 10+ years was reduced from 24% to 21%. There was a 50% decrease in mortality rate in the second decade.

- *Abstract LBA 1001* (J. Rutgers et al.) reviewed the AMAROS study. Patients with a positive sentinel node were randomized to axillary radiation therapy or axillary lymph node dissection. These two therapies were equal in efficacy with axillary recurrence of 1.19% with radiation therapy, 0.43% with surgery, but 0.7% in patients who had negative axillary sentinel lymph node biopsy. Importantly, lymphedema at 5 years was reduced from 28% in the lymph node dissection group compared to 14% in the radiation group.
- *Abstract CRA 1501* (J. Churpek et al.) looked at African-American hereditary breast cancer. Unselected African-Americans were found to have a 22% incidence of genetic mutations, resulting in increased risk. Of the total mutations, 79% were in the *BRCA1* or *BRCA2* genes, and 21% were in other genes, including *ATM*, *CHEK2*, *PALB1*, and *PTEN*.
- *Abstract CRA 1008* (G. Budd et al.) looked at once-weekly paclitaxel vs. paclitaxel every two weeks following dose-dense doxorubicin plus cyclophosphamide in adjuvant therapy. The efficacy was equal between once-weekly paclitaxel and every two week paclitaxel, but the once-weekly paclitaxel was better tolerated. Neurotoxicity was

17% with every two week versus 10% with once-weekly; musculoskeletal complaints were 11% with every two weeks versus 3% with once-weekly.

- *Abstract 1007* (L. Shulman et al.) compared adjuvant therapy with doxorubicin plus cyclophosphamide (AC) vs. paclitaxel (T). Five-year relapse-free survival was 91% on AC vs. 88% on T, $p=0.05$. There were 9 deaths from toxicity on AC, no deaths (0) from toxicity on T. Observed survival was 95% (AC) vs. 94% (T), hematologic toxicity was 33% (AC) vs. 4% (T), and non-hematologic toxicity was 33% (AC) vs. 22% (T).
- *Abstract 1022* (D. Gagliato et al.) showed delay of adjuvant chemotherapy after surgery predicts overall survival. With the delay between surgery and first chemotherapy of less than 30 days, overall survival was 60% vs. only 40% if chemotherapy was started more than 30 days after surgery.
- *Abstract 1030* (A. Hartkopf et al.) looked at patients whose bone marrow continued to show breast cancer cells after completion of chemotherapy. These patients had an 8-year overall survival of 75% compared to 85% if the bone marrow was negative for breast cancer cells.

Colon Cancer

- *Abstract LBA 3506* (V. Heinemann et al.) compared FOLFIRI plus cetuximab. It was found to be superior to FOLFIRI plus bevacizumab with an observed overall survival of 28.8 months versus 25 months, HR 0.77, $p=0.01$.
- *Abstract 3500* (D. Mant et al.) looked at stages 1-3 colon cancer and examined different strategies for surveillance for recurrence. CEA (carcinoembryonic antigen) every 3 months plus CT scan at 12 to 18 months was found to be equal to CT scan every 3 to 6 months, and markedly less costly with less radiation exposure.
- *Abstract 3501* (C. Loprinzi et al.) demonstrated that calcium plus magnesium infusion was not successful in preventing neurotoxicity. However, it did decrease symptoms in some patients.
- *Abstract 3502* (M. Koopam et al.) showed that maintenance capecitabine plus bevacizumab was superior to no maintenance with an overall survival of 21.7 months versus 18.2 months, HR 0.8, $p=0.036$.
- *Abstract 3504* (J. Primrose et al.) examined patients with therapy for stage 4 disease with resectable liver metastases. Surprisingly, patients who had only chemotherapy had superior survival compared to patients who had chemotherapy plus cetuximab, HR 1.49, $p=0.03$.
- *Abstract 3505* (A. Falcone et al.) looked at stage 4 patients, and demonstrated that FOLFOXIRI plus bevacizumab was better than FOLFOX plus bevacizumab, PFS HR 0.77, $p=0.06$, observed overall survival, HR 0.79, $p=0.054$.

Non-Small Cell Lung Cancer

- *Abstract 8009* (D. Planchard et al.) looked at stage 4 patients with BRAF V600E mutations and found that dabrafenib had a partial response rate of 40%.
- *Abstract CRA 8007* (S. Ramalingam et al.) showed that docetaxel plus ganetespib (HSP90 inhibitor) was superior to docetaxel alone in second-line therapy. Overall survival, HR 0.91, $p=0.0009$.
- *Abstract 8008* (D. Spiegel et al.) looked at the anti-PDL-1 inhibitor MPDL 3280A. The observed response rate was 22%; 80% in PDL-1 positive tumors and 14% in PDL-1 negative tumors.
- *Abstract 7501* (J. Bradley et al.) studied patients with stage 3 tumors who received chemo-radiation therapy; 60Gy was found to be superior to 74Gy, median overall survival 28.7 months versus 19.5 months, $p=0.0007$.
- *Abstract 7503* (M. Pless et al.) looked at patients after neo-adjuvant chemotherapy with or without radiation therapy, followed by surgery for stage 3A, N2 disease. The addition or deletion of radiation therapy was found to be equal.

Small Cell Lung Cancer

- *Abstract 7506* (N. Ready et al.) looked at sunitinib after chemotherapy induction versus no sunitinib as maintenance therapy. The progression-free survival was 3.8 months on sunitinib versus 2.3 months on no therapy, HR 1.5, $p=0.04$.

Prostate Cancer

- *Abstract 5023* (N. Schweizer et al.) looked at patients who had received androgen deprivation therapy (ADT) for 18 months. Testosterone recovery to 150 ng/dl took a median of 306 days, and recovery of testosterone levels to pre-ADT level took a median of 487 days. This data is important to discuss with patients who are receiving ADT and having side effects.
- *Abstract 5008* (R. Thomas et al.) studied patients who were on “watchful waiting” or active surveillance. Patients were randomized to receive POMI-T, a pill with polyphenols from pomegranate, green tea, broccoli, and curcumin compared to placebo. The patients on POMI-T had a higher frequency of stable or lower PSA, 46% versus 14% on placebo. The numbers on patients on watchful waiting were 92% on POMI-T versus 74% on placebo.
- *Abstract LBA 4510* (A. Nabid et al.) looked at ADT after radiation therapy; 18 months of ADT was found to be equal to 36 months of ADT in disease-free survival and overall survival.
- *Abstract 5007* (D. Margel et al.) studied patients who had diabetes and prostate cancer. Patients who were receiving metformin compared to patients who had any other anti-

diabetic therapy had an improved overall survival, HR 0.76 p=0.01.

Lymphoma

- *Abstract 8505* (S. Pingali et al.) looked at Hodgkin's disease patients who were being monitored for recurrence. Survival with CT scans done every 6 months was equal to patients who were monitored only with clinical parameters with CT scans for symptoms or signs, p=0.47.
- *Abstract 8504* (C. Thompson et al.) studied patients with diffuse large B-cell lymphoma. Monitoring for recurrence with CT scans every 3 to 6 months detected only 1.5% of recurrences. The other 98.5% of recurrences were detected by physical examination, symptoms, LDH elevation, or other clinical parameters. Bottom line: CT scans may not be required on a regular basis.
- *Abstract 8503* (H. Huang et al.) looked at patients who were hepatitis B positive. Entecavir was found to be superior to lamivudine to prevent reactivation; it was stressed that drugs should be continued for at least 6 months after chemotherapy.

Melanoma

- *Abstract CRA 9006* (M. Sznol et al.) looked at nivolumab, an anti-PD-1 antibody, and observed a 31% overall response rate with median survival of 16.8 months; 16 out of 29 responses lasted more than one year.
- *Abstract CRA 9007* (F. Hodi et al.) compared GM-CSF plus ipilimumab to ipilimumab alone. The study found increased survival with addition of GM-CSF, HR 0.65 p=0.1, with decreased toxicity on GM-CSF.
- *Abstract LBA 9008* (R. Andtbacka et al.) explored intratumoral vaccine with T-VEC. It was found to be superior to adjuvant therapy with GM-CSF with durable responses lasting over 6 months in 16.3% vs. 2.1% of patients, overall survival 23 versus 19 months, HR 0.79, p=0.07.
- *Abstract LBA 9000* (P. Corrie et al.) looked at stage 2 and 3 melanoma and found that the use of bevacizumab as an adjuvant therapy was better than use of no bevacizumab, disease-free interval, HR 0.83, p=0.03.
- *Abstract 9016* (J. Cebon et al.) studied patients who received dabrafenib. Secondary occurrences of squamous cell carcinoma of the skin were observed in 10 out of 53 patients. This occurrence was decreased by adding trametinib to the dabrafenib, with only 5 out of 109 patients having squamous cell cancer of the skin.
- *Abstract 9030* (E. Hersh) showed that nab-paclitaxel was equivalent to dacarbazine in primary therapy of metastatic melanomas. Observed survival was equal. In patients who had a BRAF mutation, overall survival was found to be 16.9 months.

- *Abstract 9035* (P. Ascierto et al.) looked at the sequence of using ipilimumab and BRAF inhibitors. In a non-randomized retrospective trial, the overall survival of 14.5 months was longer if ipilimumab was given before BRAF inhibitors compared to only 9.9 months if BRAF inhibitors were given before ipilimumab (p=0.04).

Ovarian Cancer

- *Abstract LBA 5501* (S. Pignata et al.) demonstrated that therapy with carboplatin plus paclitaxel every week showed equivalent progression-free survival 18.8 months vs. administering the drugs every 3 weeks, progression-free survival 16.5 months. Weekly carboplatin plus paclitaxel had reduced toxicity.
- *Abstract LBA 5503* (A. DuBois et al.) looked at data from the AGA-OVAR16 study. Patients with stages 2-4 ovarian cancer after surgery and chemotherapy were randomized between pazopanib vs. no therapy. Pazopanib increased the progression-free survival to 17.9 months versus 12.3 months without the drug, HR 0.76, p=0.02.

Cervical Cancer

- *Abstract 2* (S. Shastri et al.) presented on a two decade trial of using acetic acid (VIA) for screening for cervical cancer in the slums of India. Mortality was reduced by VIA screening, compared to conventional non-screening, HR 0.69, p=0.03. This data was estimated to possibly reduce mortality worldwide by one-third if used in lower income or slum situations.
- *Abstract 3* (K. Tewari et al.) looked at recurrent cervical cancer in the Gynecology Oncology Group. Chemotherapy with bevacizumab was found to be superior to chemotherapy alone with overall survival, HR 0.71, p=0.0035.

Thyroid Cancer

- *Abstract 4* (M. Brose et al.) showed that radioiodine refractory, well-differentiated thyroid cancers had longer progression-free survival when receiving sorafenib vs. placebo, HR 0.58, p=0.0001.
- *Abstract 6000* (S. Sherman et al.) looked at medullary carcinoma of the thyroid, which harbors the RET mutation. Cabozantinib produced better progression-free survival compared to no therapy, 11.2 months vs. 4.0 months.

Head and Neck Cancer

- *Abstract CRA 6031* (G. D'Souza et al.) looked at partners of patients who had oropharyngeal squamous cell cancer that was positive for HPV. Only 7.3% of partners were positive for HPV (29% in male partners, 5% in female partners).

Renal Cell Carcinoma

- *Abstract 4504* (R. Motzer et al.) compared sunitinib with everolimus. Sunitinib was superior with a progression-free survival of 10.7 versus 7.8 months.

GIST Tumors

- *Abstract 10501* (J. Blay et al.) looked at first-line therapy of GIST tumors. Imatinib was superior to nilotinib with an overall survival at 24 months of 90% vs. only 81%, HR 1.85.
- *Abstract LBA 10502* (Y. Kang et al.) looked at third-line therapy. Reintroduction of imatinib was better than no therapy, with a disease control rate at 12 weeks of 32% versus only 5%, $p=0.003$.

Pancreatic Cancer

- *Abstract LBA 4003* (P. Hammel et al.) looked at continued chemotherapy versus chemo-radiotherapy after patients had been stable on gemcitabine for 4 months. Chemotherapy was equal to chemoradiation therapy, HR 1.03, $p=0.82$.
- *Abstract 4005* (D. Von Hoff et al.) presented data on the IMPACT trial. Nab-paclitaxel plus gemcitabine was found to be superior to gemcitabine alone, overall survival 8.6 versus 6.7 months, HR 0.72, $p=0.00001$.
- *Abstract 4008* (A. Fukutomi et al.) compared the drug S1 to gemcitabine for patients who received adjuvant therapy after resected pancreatic cancer. The overall survival at 2 years was better for S1, 70%, compared to 53% for gemcitabine, HR 0.56, $p=0.0001$.

Gastric Cancer

- *Abstract LBA 4001* (J. Hecht et al.) compared lapatinib plus CapeOx to CapeOx alone in HER2 positive gastric cancers. The results were equal.
- *Abstract 4013* (Y. Bang et al.) looked at olaparib plus paclitaxel compared to paclitaxel alone. The overall survival was 13 months with olaparib vs. 8 months without, HR 0.56, $p=0.01$.
- *Abstract 4023* (N. Cook et al.) looked at second-line therapy in gastric cancer. Docetaxel was found to be superior to best supportive care, overall survival, HR 0.67, $p=0.01$, with increased quality of life on docetaxel.

Central Nervous System Tumors

- *Abstract 1* (M. Gilbert et al.) looked at data from RTOG 0825. Bevacizumab did not increase overall survival in primary therapy of glioblastoma compared to no bevacizumab $p=0.11$. All patients received surgery, temozolomide, and radiation therapy.
- *Abstract LBA 2000* (U. Herrlinger et al.) looked at patients with glioblastoma who had non-methylated MGMT. Patients

who received bevacizumab plus irinotecan plus radiation therapy had superior progression-free survival compared to patients who received temozolomide plus radiation therapy, $p=0.0001$.

- *Abstract 2002* (W. Wick et al.) presented on findings from the AVAGLIO study. Patients who received radiation therapy plus temozolomide plus bevacizumab were compared to patients who received radiation plus temozolomide alone. Progression-free survival was superior with the addition of bevacizumab, HR 0.64, $p=0.0001$, but overall survival was equal.

Myeloma

- *Abstract 8509* (M. Bocadero et al.) looked at patients after chemotherapy and bone marrow transplantation, and found that maintenance therapy with lenalidomide was superior to placebo with progression-free survival 37 vs. 26 months, HR 0.52, $p=0.00001$, and overall survival improved, HR 0.62, $p=0.02$.
- *Abstract 8510* (J. San Miguel et al.) studied patients after lenalidomide plus bortezomib progression. Pomalidomide plus dexamethasone was better than high-dose dexamethasone, overall survival, HR 0.53, $p=0.001$, which should become the standard of care.

Survivor Care

- *Abstract 9502* (E. Chow et al.) compared single-dose radiation therapy vs. standard radiation therapy for bone metastases. Single-dose radiation therapy was found to be less toxic and equally effective to standard radiation therapy.
- *Abstract 9504* (A. Gerry et al.) looked at breast cancer patients with sleep disorders. They found that 25% of patients had severe sleep disorders. Progression-free survival was 80 months if there was no sleep disorder, compared to only 49 months if there was a sleep disorder, $p=0.05$.
- *Abstract 9532* (O. Palesh et al.) also presented on sleep disorders in breast cancer patients. The presence of sleep disorders decreased overall survival at 8 years. If patients had less than 85% effective sleep, 8 years survival was 18% but if patients had effective sleep over 85%, then 8 years survival was 55%.
- *Abstract 9507* (J. Steele et al.) presented on depression in cancer patients. Patients who had depression had higher inflammatory markers, and had a reduced overall survival of 13 months, compared to 6 months in patients who did not have depression.
- *Abstract 9515* (S. Lichtman et al.) looked at patients on CALGB/CTSU 49907, who received adjuvant breast cancer therapy and were elderly. If patients had renal dysfunction, but had appropriate dose-adjustment of chemother-

apy for level of creatinine, survival was equal to patients who did not have renal dysfunction and received full doses of chemotherapy.


- *Abstract 9519* (A. Enzinger et al.) presented on desires of patients, finding while 72% want detailed information on life expectancy, only 17% actually received it.
- *Abstract 9528* (V. Kennedy et al.) looked at actual vaginal volume measurements compared to patients estimate of their vaginal volume following pelvic radiation therapy. The actual vaginal volume was much larger than patient estimates, with measured vaginal volumes larger in 64% of sexually active patients and 86% of sexually inactive patients. Therefore, patients should be counseled to use vaginal dilator sets and increase sexual activity if desired and if appropriate.
- *Abstract 10004* (C. Sun et al.) looked at the ability of SNP arrays to measure the hyaluronidase synthase, HAS3, and found that having the AA variant increased the risk of anthracycline cardiotoxicity by 8.5 fold. Patients with the GG variant had no increased risk. If confirmed in future studies, these findings may help to determine risk prior to making treatment decisions about using or not using anthracyclines.

Health Services Research

- *Abstract CRA 6510* (E. Emanuel et al.) studied drug shortages. They found 92% of physicians said that care of patients was affected by drug shortages and 38% of physicians substituted more expensive drugs for less expensive drugs.
- *Abstract 6503* (J. Peppercorn), found that elimination of co-pay requirements for mammography increased the use of mammography from 61% to 69%.
- *Abstract 6506* (Y. Zafar et al.) showed that 48% of patients wanted to discuss the cost of care with their physician, but only 21% were able to do so. The same study found that 54% of patients wanted the physician to consider the cost of care in decision-making.
- *Abstract 6508* (P. Bach et al.) looked at the use of the IBM Watson supercomputer in patients with non-small cell lung cancer. The first recommendation from machine evaluation of the history, laboratory, and X-ray data agreed with the first recommendation of the oncology specialist in 80% of patients. Machine learning is being used to improve the concordance of recommendations.
- *Abstract 6509* (D. Hershman et al.) examined SEER data from 1998 through 2007, which encompassed data from 37,000 patients. They found that 33% of patients received one or more drugs that were not FDA-approved. How-

ever, when NCCN-approved drugs were added, only 10% of patients received one or more chemotherapy drugs that were not either FDA-approved or approved in the NCCN compendium.

- *Abstract 6512* (S. Rajguru et al.) found that 69% of patients wanted to discuss costs with their physician, but only 20% of patients have actually discussed it. The same study found that 82% of patients wanted exact prognosis, but 80% of patients were unsure of the stage of their cancer.
- *Abstract 6533* (T. Shanafelt) examined oncologist burnout and found that 45% of American oncologists have at least one sign of burnout (emotional exhaustion, depersonalization thoughts, or a positive burn-out inventory). Burnout was greater in physicians who logged more hours of work, and was 45% in physicians in academic settings and 50% in physicians in community settings.

Before using this information to change your practice patterns, I urge you to review the full abstracts on ASCO's website (www.asco.org), read the published manuscripts, and, if possible, attend a meeting of "The Best Of ASCO," which will be held at various sites around the country. Another option: purchase ASCO's virtual meeting. 

Cary A. Presant, MD, FACP, FASCO, is an oncologist at Wilshire Oncology Medical Group, LaVerne, Calif. He is a past president of the Association of Community Cancer Centers and a professor of clinical medicine at University of Southern California Keck School of Medicine.