

# American Society of Clinical Oncology 2019

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The 2019 ASCO annual meeting held in Chicago, Illinois, from May 31 to June 4, hosted tens of thousands of oncology professionals. We review key sessions on prostate cancer, urothelial cancer, non–small-cell lung cancer, gastric and gastroesophageal cancers, smoldering multiple myeloma, breast cancer, and pancreatic cancer.

## Overall Survival Results of a Phase 3 Randomized Trial of Standard-of-Care Therapy With or Without Enzalutamide for Metastatic Hormone-Sensitive Prostate Cancer: ENZAMET (ANZUP 1304), an ANZUP-Led International Cooperative Group Trial

- Christopher Sweeney, MD, Lank Center for Genitourinary Oncology, Dana-Farber Cancer Institute, Boston, Massachusetts

In men with both low- and high-volume metastatic hormone-sensitive prostate cancer (mHSPC), the early addition of enzalutamide to standard therapy (testosterone suppression ± docetaxel) substantially improved time to progression (TTP) and overall survival (OS). Reporting on results from the ENZAMET trial during a press briefing, Dr. Christopher Sweeney said that enzalutamide is a potent, direct androgen receptor inhibitor with known OS benefits in castrate-resistant prostate cancer.

Testosterone suppression with or without a standard non-steroidal antiandrogen (with cytotoxic chemotherapy—e.g., docetaxel and abiraterone, an inhibitor of extragonadal androgens) was the only therapy available for mHSPC until 2014. Dr. Sweeney presented the first mHSPC OS data for enzalutamide plus testosterone suppression in patients who were also receiving docetaxel.

Among the ENZAMET subjects, testosterone-suppressing agents included goserelin, leuprolide, or degarelix. These were added to either oral enzalutamide 160 mg daily or to one of three standard non-steroidal antiandrogens: bicalutamide, nilutamide, or flutamide. Of the 1,125 men enrolled in the trial, 503 received early doses of docetaxel and 602 did not. The participants were followed for a median of 34 months.

Dr. Sweeney reported a significant OS benefit for enzalutamide at three years. Eighty percent of subjects who received enzalutamide plus testosterone suppression, with or without early docetaxel, survived; this was in contrast to 72% of subjects who received one of the other three non-steroidal antiandrogens ( $P = 0.002$ ). Overall, the risk of death was reduced by 33% in patients receiving enzalutamide compared with patients receiving non-steroidal antiandrogens. Also, of 596

men with a higher disease burden on imaging scans, 71% taking enzalutamide were alive compared with 64% taking another non-steroidal antiandrogen. In the 529 men with a low disease burden, OS was 90% and 82%, respectively, for those receiving enzalutamide or another non-steroidal antiandrogen.

Dr. Sweeney underscored the fact that the survival benefit with enzalutamide was most pronounced in men who were not receiving docetaxel (83% vs. 70%, for enzalutamide or other non-steroidal antiandrogens). Also, in men with a low disease burden, a survival benefit was evident with enzalutamide but not with docetaxel. At three years, 64% of men who had been assigned to enzalutamide were still on therapy compared with 36% of men who had been assigned to other non-steroidal antiandrogens.

Serious adverse-event rates were higher (42%) with enzalutamide than with the other non-steroidal antiandrogens (34%), and more docetaxel-related toxicity was reported with the addition of enzalutamide.

Neeraj Agarwal, MD, an ASCO-appointed expert commentator, noted: “In addition to helping men live longer overall, this approach means they can also likely go longer without having to take steroids or receive chemotherapy.”

## EV-201: Results of Enfortumab Vedotin Monotherapy for Locally Advanced or Metastatic Urothelial Cancer Previously Treated With Platinum and Immune Checkpoint Inhibitors

- Daniel Peter Petrylak, MD, Yale Cancer Center, New Haven, Connecticut

In patients with advanced and metastatic urothelial carcinoma progressing after platinum chemotherapy and a PD-1/L1 inhibitor, the novel therapeutic enfortumab vedotin is the first to demonstrate substantial clinical activity. This investigational antibody-drug conjugate targets Nectin-4, a therapeutic target highly expressed in multiple solid tumors, including 97% of urothelial cancers, said Dr. Daniel Peter Petrylak at a press briefing.

Although platinum-based combination chemotherapy remains the first-line therapy for these patients, most of them progress and require subsequent treatment, Dr. Petrylak noted. Response rates for second-line PD-1 or PD-L1 inhibitors are low (13%–21%) and there is no standard subsequent treatment. The FDA granted enfortumab vedotin a breakthrough therapy designation in March 2018, based on phase 1 results. “There is a high unmet need for this population,” said Dr. Petrylak.

Investigators for the phase 2 EV-201 study enrolled patients who had previously been treated for locally advanced or metastatic urothelial cancer with platinum-based chemotherapy and/or checkpoint inhibitors, and assigned them to two groups: the

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first had received chemotherapy and immunotherapy and the second had received immunotherapy only. Both groups then received enfortumab vedotin (1.25 mg/kg intravenously on Days 1, 8, and 15 of each 28-day cycle). The primary endpoint was the objective response rate (ORR) per Response Evaluation Criteria in Solid Tumors (RECIST) 1.1, as determined by a blinded independent central review.

Presenting results for the first cohort only (n = 125; male, 70%; median age, 69 years), Dr. Petrylak reported a 44% ORR among patients, with a complete response in 12%, a partial response in 32%, and stable disease in 18%. Progressive disease was reported in 18% of patients. The median time to response was 1.8 months, duration of response was 7.6 months, and median progression-free survival was 5.8 months.

Prior PD-1/L1 inhibitor history or the presence of liver metastases did not affect responses, which were observed across all subgroups.

Treatment was well tolerated, with a discontinuation rate of 12% for treatment-related adverse events (AEs), mostly for peripheral neuropathy (any grade, 40%;  $\geq$  grade 3, 2%). Fatigue and alopecia were the most common AEs at 50% and 49%, respectively ( $\geq$  3 events at 6% and 0%, respectively).

“The fact that we have a therapy that can help people who don’t benefit from checkpoint inhibitors is very gratifying,” Dr. Petrylak said.

“We await larger studies to confirm these early findings,” said ASCO expert Robert Dreicer. “Although this is a small phase 2 trial,” he added, “the anti-tumor activity demonstrated in patients whose disease progressed on chemotherapy and immunotherapy is promising.”

### Five-Year Overall Survival for Patients With Advanced Non–Small-Cell Lung Cancer Treated With Pembrolizumab: Results From the Phase 1 KEYNOTE-001 Study

- Edward B. Garon, MD, David Geffen School of Medicine at the University of California, Los Angeles

The potential of pembrolizumab monotherapy to improve long-term outcomes was confirmed in data from KEYNOTE-001, a multicohort phase 1b study among treatment-naïve and previously treated patients with advanced non–small-cell lung cancer (NSCLC). Study enrollment commenced in 2011, noted Dr. Edward Garon in a press briefing, before immunotherapies were widely available. Among the 550 subjects with advanced NSCLC, many (n = 101) had not received prior treatment, but others had prior treatment with systemic or targeted therapies.

The KEYNOTE-001 participants received pembrolizumab (2 mg/kg every 3 weeks [Q3W], or 10 mg/kg Q2W or Q3W). Recently, Dr. Garon pointed out, the protocol was modified to include 200 mg as a single dose every three weeks regardless of body weight, as is common in clinical practice. Dr. Garon’s current analysis assessed five-year overall survival (OS) and safety outcomes at a median follow-up of 60.6 months (range, 51.8–77.9 months). Of the 550 trial subjects, 100 were alive at data cutoff. Treatment duration was two years or more in 60 patients (treatment-naïve, n = 14; prior treatment, n = 46).

With treatment-naïve/prior treatment and PD-L1 tumor

proportion score (TPS)  $\geq$  50%/TPS 1–49% as the stratification criteria, study analysis showed longer OS in the group with TPS  $\geq$  50%. In treatment-naïve patients, median OS was 35.4 months compared with 19.5 months in patients with TPS 1–49%. Five-year OS was 29.6% in patients with TPS  $\geq$  50%, and 15.7% in patients with TPS 1–49%.

In previously treated patients, median OS was 15.4 months and 8.5 months in the TPS  $\geq$  50% and TPS 1–49% groups, respectively; in patients with TPS < 1%, OS was 8.6 months. At five years, OS in the TPS  $\geq$  50%, 1–49%, and < 1% groups was 25.0%, 12.6%, and 3.5%, respectively.

Of the 60 patients receiving  $\geq$  two years of pembrolizumab treatment (median, 36 months; range, 17.3–75.9 months), 46 were alive at data cutoff. Five-year OS was 78.6% and 75.8% in the treatment-naïve and prior-treatment groups, respectively. Median duration of response was 52.0 months in the treatment-naïve group, and was not reached in the prior-treatment group.

Grade 1–2 hypothyroidism and grade 1–5 pneumonitis were the most common adverse events (AEs). Overall, immune-related AEs were reported in 92 patients (17%), said Dr. Garon.

Dr. Garon concluded that compared with standard chemotherapies, which were available before the introduction of immunotherapies, pembrolizumab treatment produced clinically meaningful improvements in five-year OS. With standard chemotherapies, five-year OS in patients with distant metastases was 5.5%. In patients receiving pembrolizumab monotherapy, five-year OS was at least 25% for those patients with PD-L1 TPS  $\geq$  50%.

### Pembrolizumab With or Without Chemotherapy Versus Chemotherapy for Advanced Gastric or Gastroesophageal Junction (G/GEJ) Adenocarcinoma: The Phase 3 KEYNOTE-062 Study

- Josep Tabernero, MD, Vall d’Hebron University Hospital and Institute of Oncology, Barcelona, Spain

For patients with advanced gastric and gastroesophageal junction (G/GEJ) cancers whose tumors exhibit high levels of PD-L1 expression, randomization to pembrolizumab compared to chemotherapy led to improved overall survival (OS), according to results from the phase 3 KEYNOTE-062 trial, presented at a press briefing by Dr. Josep Tabernero. For patients with advanced G/GEJ cancers, he said, front-line pembrolizumab is a promising alternative to chemotherapy.

In September 2017, the FDA granted accelerated approval for pembrolizumab in patients with recurrent (after two or more prior lines of fluoropyrimidine and platinum-containing chemotherapy), locally advanced or metastatic G/GEJ cancer with tumors that express PD-L1 with a combined positive score (CPS) of  $\geq$  1. Gastric cancer, Dr. Tabernero noted, is the fifth most frequently diagnosed cancer worldwide, and GEJ cancers, although less common, have been increasing in incidence during the current decade.

Gastric and gastroesophageal junction cancers are similar tumor types, said Dr. Tabernero. Among the 763 patients (median age, 62 years) enrolled in KEYNOTE-062, 69% had gastric cancer and 30% had GEJ cancer. Twenty-six percent of patients had prior gastric surgery. The focus of KEYNOTE-062

was on HER2-negative cancers, which in studies have shown a higher recurrence. Studies have also demonstrated pembrolizumab's benefit in patients with PD-L1 CPS  $\geq 1$ , and a greater benefit in patients with CPS  $\geq 10$ . All patients in the trial had PD-L1 CPS  $\geq 1$ , and 37% had CPS  $\geq 10$ .

KEYNOTE-062 investigators randomly assigned patients 1:1:1 to intravenous pembrolizumab (200 mg Q3W, up to 35 cycles); pembrolizumab (200 mg Q3W, up to 35 cycles) and chemotherapy; or chemotherapy plus placebo; and patients were followed for a median of 11.3 months. Overall survival and progression-free survival (PFS) were the primary endpoints.

Data analysis revealed an OS advantage of 0.5 months for the pembrolizumab cohort compared with the chemotherapy cohort (11.1 months vs. 10.6 months) among patients with PD-L1 CPS  $\geq 1$ . Only Asian patients had a more pronounced benefit with pembrolizumab compared with chemotherapy. Dr. Taberero observed that whether this was an artifact or was biologically caused remains unclear. In patients with CPS  $\geq 10$ , however, median OS for pembrolizumab was 17.4 months compared with 10.8 months for chemotherapy; adverse events occurred in 66% of patients receiving pembrolizumab compared with 83% of patients receiving chemotherapy.

Among patients with PD-L1 CPS  $\geq 1$ , median OS for pembrolizumab plus chemotherapy compared with chemotherapy alone was 12.5 months and 11.1 months, respectively. In patients with CPS  $\geq 10$ , median OS was 12.3 months for pembrolizumab plus chemotherapy and 10.8 months for chemotherapy alone.

Discontinuation of therapy for adverse events (grades 3–5) was reported at rates of 27.6% for patients receiving pembrolizumab plus chemotherapy, 3.9% for patients receiving pembrolizumab alone, and 18.0% for patients receiving chemotherapy alone.

Pembrolizumab was noninferior to chemotherapy for OS in this population when PD-L1 CPS was  $\geq 10$  (hazard ratio, 0.91), Dr. Taberero concluded. With PD-L1  $\geq 10$ , however, there was a clinically meaningful improvement in OS with pembrolizumab compared with chemotherapy. Adding chemotherapy to pembrolizumab as first-line therapy offered no OS or PFS benefit over chemotherapy alone.

The safety profile of pembrolizumab, Dr. Taberero noted, is improved compared with chemotherapy.

Richard L. Schilsky, MD, moderator and ASCO chief medical officer, commented: "These results introduce a potential alternative in pembrolizumab that comes with fewer side effects and, importantly, for some it can greatly extend survival."

### Optimizing Chemotherapy for Frail and Elderly Patients With Advanced Gastroesophageal Cancer: The GO2 Phase 3 Trial

- Peter S. Hall, PhD, Medical Oncologist, University of Edinburgh, United Kingdom

Results of the largest, randomized controlled trial to date in frail or elderly patients with advanced gastric or esophageal cancers suggest that lower-dose chemotherapy can produce superior outcomes, without compromising cancer control or survival. In the phase 3 GO2 trial, Dr. Peter Hall said in a press briefing, the lowest dose tested produced less toxicity and was

noninferior for progression-free survival (PFS).

Clinical trials testing "standard" chemotherapy for this condition have been conducted among non-frail patients averaging 65 years of age. But with 75 years being the average age of patients who are diagnosed with advanced, inoperable gastroesophageal cancer, many are frail, said Dr. Hall. When he and colleagues audited UK oncologists on their treatment of frail and/or elderly patients with gastroesophageal cancer, most of them reported using reduced chemotherapy schedules despite lack of supporting evidence. Dr. Hall's prior research, which compared 3-drug (oxaliplatin, capecitabine, epirubicin), 2-drug (oxaliplatin/capecitabine), or 1-drug (capecitabine) treatment for gastroesophageal cancer, has shown superior results for the 2-drug regimen (oxaliplatin/capecitabine). The 3-drug combination was too toxic and could not be tolerated by patients. GO2, a large national trial, aims to find the optimum doses of 2-drug chemotherapy in frail and elderly patients with gastroesophageal cancer and assess its benefits and harmfulness.

Investigators enrolled patients who were suitable for reduced-intensity chemotherapy from 61 hospitals across the UK. All patients were deemed not fit for full-dose 3-drug chemotherapy. The patients (N = 514; age, 51–93 years) were randomized to one of three dosage levels: Level A (oxaliplatin 130mg/m<sup>2</sup> every 21 days and capecitabine 625 mg/m<sup>2</sup> continuously, twice daily); Level B (80% of Level A dosage); or Level C (60% of Level A dosage). Patients with decreased kidney function received 75% of the suggested doses of capecitabine. After nine weeks, the patients were assessed for overall treatment utility (OTU), including: cancer progress on scans, oncologist assessment of benefit, lack of severe toxic events, global quality-of-life maintenance, and the patient finding treatment worthwhile and not interfering with activities.

Patients randomized to Level C dosages, Dr. Hall reported, had fewer toxic reactions to the medicines and better OTU outcomes than Levels A or B. Level C dosage produced the best OTU even in younger, less frail subjects, and no group benefited more from higher dosage levels. Overall survival was comparable across the doses: patients lived for a median of 7.5 months at Level A dosages, 6.7 months for Level B dosages, and 7.6 months for Level C dosages. Median PFS was similar across all three doses (Level A, 4.9 months; Level B, 4.1 months; and Level C, 4.3 months).

Among Level C patients, grade 3 or higher adverse-event (AE) rates were lower and OTU scores were higher. For Level A patients, AE rates were 56%; for Level B patients, 56%; and for Level C patients, 37%. Also, OTU scores (Good, Intermediate, or Poor) were Good for 43% of Level C patients, 35% of Level A patients, and 36% of Level B patients.

"These data are important because they provide a potential new option for patients to slow disease progression," commented ASCO President Monica M. Bertagnolli, MD.

"Low-dose treatment may be offered to patients who are suitable for chemotherapy but too frail or elderly for a full-dose standard regimen, with confidence that it can produce superior outcomes without compromising cancer control or survival," Dr. Hall concluded.

### Randomized Phase 3 Trial (E3AO6) of Lenalidomide Versus Observation Alone in Patients With Asymptomatic High-Risk Smoldering Multiple Myeloma

- Sagar Lonial, MD, Chief Medical Officer, Winship Cancer Institute of Emory University, Atlanta, Georgia

In high-risk patients with smoldering multiple myeloma (SMM), early therapy with lenalidomide improves progression-free survival (PFS) and overall survival (OS). In patients with moderate- or high-risk SMM, lenalidomide improves PFS, according to Dr. Sagar Lonial.

A recent survey of 86,000 individuals with multiple myeloma (MM) showed that approximately 14% of them were first diagnosed with SMM (median age, 67 years), he said in an oral presentation. Smoldering multiple myeloma progresses to MM within five years in only about half of patients, however. The lack of organ damage in SMM differentiates it from MM. In a Spanish trial of lenalidomide combined with dexamethasone, Dr. Lonial said, the combination both lengthened the time before patients developed SMM and extended their survival.

The E3AO6 trial, which included patients with intermediate- or high-risk SMM, was conducted in two phases: a potential efficacy phase, in which all patients (N = 44) received lenalidomide, and a randomized phase 3 segment, in which 182 patients were randomized to lenalidomide 25 mg daily for 21 days of a 28-day cycle, or to observation.

The overall response rate (ORR) was 47.7% in the efficacy phase; in the randomized phase, ORR was 48.9% in the lenalidomide arm and 0% in the observation arm. In both phases, and for moderate-risk and high-risk patients, outcomes were generally improved with lenalidomide. The primary endpoint of two-year PFS among 90 patients who were receiving lenalidomide was 93% (95% confidence interval [CI]; 0.88, 0.99), compared with 76% among 92 patients in the observation arm (95% CI; 0.66, 0.87).

Among 44 patients who received lenalidomide in the phase 2 study, the rate of freedom from progression to MM was 87% after three years. In the phase 3 part of the trial, PFS rates after one, two, and three years were 98%, 93%, and 91%, respectively, in patients receiving lenalidomide. For those patients in the standard observation group, PFS rates after one, two, and three years were 89%, 76%, and 66%, respectively (hazard ratio = 0.28;  $P = 0.0005$ ).

Dr. Lonial noted that toxicity was a serious concern, with 80% of patients in phase 2 and 51% of patients in phase 3 discontinuing treatment because of toxicity.

In high-risk patients, early therapy confers both PFS and OS benefits, and intermediate patients seem to benefit as well, Dr. Lonial concluded, based on these and the Spanish study results. "It's pretty clear that we need to differentiate between treatment of myeloma and prevention of progression of SMM. That prevention strategy is likely to be less intensive, and may focus on enhancing immune surveillance of the existing malignant clones and preventing them from progressing—as opposed to eradicating the disease."

### Phase 3 MONALEESA-7 Trial of Premenopausal Patients With HR+/HER2- Advanced Breast Cancer Treated With Endocrine Therapy ± Ribociclib: Overall Survival Results

- Sara A. Hurvitz, MD, University of California, Los Angeles Jonsson Comprehensive Cancer Center, Los Angeles

"This is the first time a statistically significant improvement in overall survival has been observed with a CDK4/6 inhibitor in combination with endocrine therapy in patients with HR+/HER2- advanced breast cancer," Dr. Sara Hurvitz said in a press briefing. She was presenting results from MONALEESA-7, a trial that demonstrated longer overall survival (OS) for ribociclib plus endocrine therapy compared with endocrine therapy alone.

The incidence of breast cancer in women aged 20 to 29 years has been increasing by approximately 2% per year since the late 1970s. Although its incidence is still lower for premenopausal women than for older women, breast cancer in younger women tends to be more aggressive and have a poorer prognosis. Nevertheless, younger women are underrepresented in clinical trials, Dr. Hurvitz said. Ribociclib, she noted, inhibits cyclin-dependent cancer-promoting enzymes (CDK4/6), and has been approved for treatment. MONALEESA-7 is the first study to evaluate a CDK4/6 inhibitor exclusively in premenopausal women under age 59 with advanced breast cancer and no prior endocrine therapy.

Trial investigators randomized 672 women to oral ribociclib (600 mg/day; 3 weeks on/1 week off) or to placebo, and all patients received estrogen suppression with goserelin and letrozole, anastrozole, or tamoxifen. The primary endpoint was progression-free survival with OS as a secondary endpoint.

Presenting an interim analysis of OS at 34.6 months, Dr. Hurvitz said that 35% of patients in the ribociclib arm were continuing study treatment at the data cutoff compared with 17% of patients in the placebo arm: The risk of death was reduced by 29% compared with placebo plus endocrine therapy (hazard ratio, 0.712;  $P = 0.00973$ ). A 36-month landmark analysis showed an OS of 71.9% for ribociclib and 64.9% for placebo. After 42 months, landmark analysis revealed an OS of 70% and 46%, respectively, for the ribociclib and placebo arms. Patterns were generally similar for women receiving either an aromatase inhibitor or tamoxifen.

Safety was consistent with ribociclib's known tolerability profile, Dr. Hurvitz said.

Harold Burstein, MD, an ASCO expert commentator, said: "This is an important study because it shows that a class of drugs, CD4/6 inhibitors, which we are widely using and which have been shown to delay the time-to-treatment progression, delay the need for chemotherapy for advanced breast cancer and really double effectiveness of endocrine therapy. This also translates into a significant survival benefit for women who have HR+ metastatic breast cancer. It is also important because it focuses on young women. While many think they have a different form of breast cancer, like triple negative or HER2+, in fact estrogen receptor plus is the most common form in young women. This is the largest study in recent memory showing that they, too, benefit in a remarkable way."

## MEETING HIGHLIGHTS: ASCO 2019

### Olaparib as Maintenance Treatment Following First-Line Platinum-Based Chemotherapy in Patients With a Germline BRCA Mutation and Metastatic Pancreatic Cancer: Phase 3 POLO Trial

- Hedy L. Kindler, MD, University of Chicago Medicine, Chicago, Illinois

In the phase 3 POLO trial, maintenance treatment with olaparib provided a significant and clinically meaningful improvement in progression-free survival (PFS) in patients with metastatic pancreatic cancer and a *BRCA* mutation. Germline *BRCA1* and/or *BRCA2* mutations, Dr. Kindler said in a press briefing, are harbored in 4–7% of patients with pancreatic cancer. This group receives increased benefit from platinum-based chemotherapy, and tumors in all POLO patients had not progressed during this chemotherapy.

Median PFS with standard-of-care FOLFIRINOX or gemcitabine plus nab-paclitaxel is about six months, and median overall survival (OS) is approximately eight to 12 months. The goal of maintenance therapy is to delay disease progression following chemotherapy without compromising health-related quality of life. Dr. Kindler noted that because toxicities to platinum-based chemotherapy often increase with treatment duration, the use of an oral, non-chemotherapeutic agent with lower toxicity, such as olaparib, could be an important option.

Patients with metastatic pancreatic cancer (N = 154; median age, 57 years) with deleterious/suspected deleterious germline *BRCA1* or *BRCA2* mutations who were enrolled in POLO had received  $\geq 16$  weeks of first-line platinum-based chemotherapy (with no limit to duration) and had no disease progression during treatment. Subjects were then randomized 3:2 to oral olaparib 300 mg twice a day or to placebo, with treatment initiation at four to eight weeks after a patient's last chemotherapy dose. Olaparib is a targeted therapy that inhibits PARP enzymes, which are important for DNA transcription and repair. Treatment was continued until investigator-assessed disease progression or unacceptable toxicity.

Median olaparib treatment was 6 months and median placebo treatment was 3.7 months. Median PFS, the primary endpoint, was reported at 7.4 months in the olaparib group and at 3.8 months in the placebo group (95% confidence interval; 0.35, 0.82;  $P = 0.0038$ ). Thirty olaparib patients (32.6%) and 12 placebo patients (19.4%) remained progression-free at data cut-off (~45 months). Objective response rates were 23.1 and 11.5%, respectively. Median time to response was 5.4 months in the olaparib group and 3.6 months in the placebo group, and median duration of response was 24.9 months in the olaparib group and 3.7 months in the placebo group. Two olaparib patients had complete responses, which were ongoing at data cutoff.

Consistent with olaparib adverse-event profiles in other tumor types, treatment was well tolerated. Health-related quality of life was preserved in both treatment arms.

“Our results are the first from a phase 3 trial to validate targeted treatment in a biomarker-selected population of pancreatic cancer patients, highlighting the importance of germline *BRCA* testing in this setting,” Dr. Kindler concluded. She commented, “For patients with *BRCA*-driven metastatic pancreatic cancer, we may be seeing a change in their disease trajectory.” ■