Lynparza Slows Disease Progression in Women With BRCA-Related Ovarian Cancer

PARP inhibitor demonstrates unprecedented improvement in progression-free survival.

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The PARP inhibitor Lynparza (olaparib) taken as frontline maintenance therapy reduced the risk of disease progression or death by 70 percent in women with newly diagnosed BRCA-mutated advanced ovarian cancer, according to a study presented at the European Society for Medical Oncology (ESMO) 2018 Congress in Munich.

“The newly diagnosed setting is our best opportunity to achieve a sustained remission, since once a patient’s ovarian cancer recurs, it is typically incurable,” said presenter Kathleen Moore, MD, of the Stephenson Cancer Center at the University of Oklahoma. "These results could change the way we treat women with advanced BRCA-mutated ovarian cancer."

Kathleen Moore, MDCourtesy of Stephenson Cancer Center

Ovarian cancer is often detected at an advanced stage and is difficult to treat. About 22,200 women will be diagnosed with this cancer and about 14,000 will die from it this year, according to the American Cancer Society. Women with certain inherited BRCA gene mutations have a much

higher risk of developing breast and ovarian cancers.

Women with newly diagnosed advanced ovarian cancer are usually treated with surgery to remove as much of the tumor as possible and platinum-based chemotherapy (for example, cisplatin or carboplatin). This cancer is often sensitive to treatment but usually only for a limited time, and most people relapse within three years, according to Moore. They may receive further chemotherapy, but once this fails, the cancer usually can't be cured.

The SOLO1 study is the first Phase III trial to evaluate a PARP inhibitor as initial maintenance therapy after the first round of chemotherapy for newly diagnosed advanced ovarian cancer or related cancers.

The trial enrolled 391 women with Stage III or IV ovarian, fallopian tube or primary peritoneal cancers. Genetic testing showed known or suspected deleterious BRCA1 or BRCA2 mutations. They had undergone surgery and were in complete or partial remission after platinum-based chemotherapy.

Study participants were randomly assigned to receive twice-daily Lynparza tablets or a placebo as maintenance therapy. Treatment continued until disease progression occurred. At two years, those in complete remission with no evidence of disease stopped treatment, while those with partial responses could continue on Lynparza. The median follow-up period was 41 months.

Lynparza is a targeted therapy that works by blocking poly ADP-ribose polymerase, or PARP, proteins, which play a role in DNA repair. Inhibiting PARP leads to more DNA breaks in cancer cells, which halts cell division. People with deleterious BRCA mutations do not make proteins that repair this kind of DNA damage, so BRCA-related cancers are especially susceptible to these drugs. Lynparza is currently approved for recurrent or relapsed ovarian cancer and for previously treated BRCA-mutated metastatic breast cancer.

After three years, progression-free survival—meaning patients were still alive without worsening of disease—improved significantly in the Lynparza group, meaning the difference was probably not attributable to chance. At that point, 60.4 percent of Lynparza recipients and 26.9 percent of placebo recipients were free of progression. In many cases, responses were ongoing after Lynparza was stopped at two years.

The median progression-free survival as assessed by the investigators was 13.8 months in the placebo group but was not reached in the Lynparza group because a majority of those women were still doing well. The median time to a second episode of disease progression was 41.9 months in the placebo group and again was not reached in the Lynparza group. Overall survival cannot yet be determined because most patients are still alive.

Moore estimated that Lynparza could potentially offer about a three-year improvement in progression-free survival. More than half of the women taking Lynparza but only 11 percent of those in the placebo group were expected to still be free of disease progression at four years, she said.

Lynparza was generally safe and well tolerated. The most common severe side effects were anemia (22 percent) and neutropenia (8 percent). Just over a quarter reduced their dose and 12 percent stopped Lynparza because of side effects. However, people who used Lynparza reported no significant change from baseline in health-related quality of life.

Moore described the SOLO1 results as showing an “unprecedented improvement” in progression-free survival, and predicted that they would change the standard of care for how women with this type of ovarian cancer are treated.

Click here to see the ESMO 2018 program.

Click here for full prescribing information for Lynparza.
