Denosumab delayed time to first skeletal-related side effect

December 10 2010

For patients with breast cancer and bone metastases, denosumab delayed skeletal-related side effects five months longer compared to those on zoledronic acid, according to results presented at the 33rd Annual CTRC-AACR San Antonio Breast Cancer Symposium.

"The average life expectancy of patients with metastatic breast cancer is approximately 2.5 years, so if you can prolong the time without a skeletal-related event by five months, you are substantially benefiting the patient," said Alison T. Stopeck, M.D., associate professor of medicine and director of the Clinical Breast Cancer Program at the Arizona Cancer Center, University of Arizona, Tucson.

The Food and Drug Administration approved denosumab, sold by Amgen as XGEVA starting Nov. 18, 2010, for the prevention of skeletal-related events in patients with bone metastases from solid tumors.

Previous results from this Phase III trial indicated that denosumab was superior to zoledronic acid in delaying the time to first on-study, skeletal-related side effects, such as fracture, radiation to bone, surgery to bone or spinal cord compression in patients with breast cancer and bone metastases. These results detail an additional four months of blinded treatment.

Stopeck and colleagues randomized 2,046 patients with advanced breast cancer to receive either 120 mg of subcutaneous denosumab or 4 mg of intravenous zoledronic acid every four weeks. Both of these drugs

inhibit osteoclasts, or the cells that break down bone, therefore, all patients took calcium and vitamin D daily.

Denosumab was better at delaying the time to first on-study, skeletal-related event by 18 percent and the time to first and subsequent event by 22 percent. The median time to first on-study, skeletal-related event was five months longer for the denosumab group compared to the zoledronic acid group.

Overall survival and disease progression was similar for both groups. Rates of side effects were 96.2 percent for those taking denosumab and 97.4 percent for those taking zoledronic acid. Jaw osteonecrosis occurred in 2.5 percent of patients taking denosumab and 1.8 percent of those taking zoledronic acid.

Stopeck thinks these results will be practice changing. "We now have an alternative to zoledronic acid that is more convenient, less toxic and more effective for patients with bone metastases," she said.

Provided by American Association for Cancer Research