Enzalutamide in Prostate Cancer

Results from the Phase 3 PROSPER trial were just announced recently. The study evaluated the use of enzalutamide plus androgen deprivation therapy (ADT) versus placebo plus ADT in patients with non-metastatic castration-resistant prostate cancer (nmCRPC). The trial found a statistically significant increase in overall survival in the treatment group, and adverse events consistent with previous studies. The trial was a randomized, double-blinded, placebo-controlled trial with 1,400 participants. Participants were included in the trial if they had a diagnosis of prostate cancer that had progressed, but without symptoms or metastasis. The primary endpoint was metastasis-free survival, and the treatment group was administered a regimen of enzalutamide 160mg orally once daily. The study resulted in a 71% lower risk of metastasis or death in the enzalutamide group when compared to placebo.

Prostate cancer is the second most common type of cancer in the United States. Most early stage prostate cancer is curable, but it can progress to nmCRPC before metastasizing and becoming fatal. Treating nmCRPC, therefore, can potentially delay progression to metastasis. Potential treatment options for nmCRPC include apalutamide, enzalutamide, and darolutamide. All three drugs are androgen receptor antagonists. Enzalutamide, specifically, is FDA approved for use in castration-resistant prostate cancer and castration-sensitive metastatic prostate cancer. It does not need to be renally or hepatically dose-adjusted. Some of the more common adverse effects are hypertension, peripheral edema, flushing, constipation, diarrhea, and fatigue. Serious adverse effects include seizure and spinal cord compression.

References:

- Jennifer Nessel. Phase 3 Trial Demonstrates Positive Results for Enzalutamide in Prostate Cancer [updated February 11, 2020]. Pharmacy Times. Available at: https://www.pharmacytimes.com/news/phase-3-trial-demonstrates-positive-results-for-enzalutamide-in-prostate-cancer. Accessed February 10, 2020.
- El-Amm J, Aragon-Ching JB. The Current Landscape of Treatment in Non-Metastatic Castration-Resistant Prostate Cancer. Clin Med Insights Oncol. 2019;13:1-5.
- Enzalutamide. In: Micromedex system [Internet Database]. Greenwood Village, Colo: Thomson Micromedex. Updated periodically. Accessed February 10, 2020.

Prepared by: Ardalan Dorost, PharmD Candidate