Lynparza and Keytruda Combination Shows Early Promise in Tumor-Agnostic Trial

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Olaparib and pembrolizumab combination shows early promise in molecularly selected, tumor-agnostic trial

- Combining Lynparza (olaparib) and Keytruda (pembrolizumab) showed antitumor activity in multiple cancer types, particularly those with *BRCA1/2* mutations
- In this combination trial patients were matched by genetic features, not tumor type – a tumor-agnostic, molecularly matched trial that included 30 different cancer types
- Prior studies indicated potential for synergy between these two therapies, and this study verified this in multiple advanced solid tumors, especially in certain subsets of patients
- Combination demonstrated complete responses and partial responses in different cancer types, including those beyond the currently approved indications for these therapies

The combination of the PARP inhibitor olaparib and the PD-1 inhibitor pembrolizumab showed initial antitumor activity with no new safety signals in a molecularly matched, tumor-agnostic trial, particularly in patients with *BRCA1/2* mutations, according to results from a Phase II trial led by researchers at The University of Texas MD Anderson Cancer Center.

Data from the KEYLYNK-007 trial were presented today in the clinical trials plenary session at the American Association for Cancer Research (AACR) Annual Meeting 2025 by Timothy Yap, MBBS, PhD, professor of Investigational Cancer Therapeutics and vice president and head of clinical development in MD Anderson's Therapeutics Discovery division.

"Previous studies suggested this combination was likely to have synergistic effects, and that's

what we saw in this trial," Yap said. "We demonstrated durable antitumor activity, particularly in the subset of patients with *BRCA1/2* mutations across multiple different solid tumors, which goes beyond the currently approved indications for these therapies."

The trial enrolled 332 patients with 30 different cancer types, according to three different genetic alteration groups defined in advance, including: patients with *BRCA1/2* mutations, those with non-*BRCA1/2* homologous recombination repair (HRR) mutations, and those with homologous recombination deficiency (HRD).

Eighteen patients had a complete response to this treatment as determined by radiological imaging, with 11 of them in the *BRCA1/2* mutation subgroup. Responses were seen in multiple tumor types for which these therapies are not currently approved.

The safety profile was consistent with the known safety profiles of both therapies.

"It's notable that this trial represents the largest dataset of molecularly matched patients for this combination therapy," Yap said. "We hope further analysis of these data can help identify new predictive biomarkers to better identify patients likely to have exceptional responses to this combination."

This trial was funded by Merck Sharp & Dohme. A full list of coauthors and their disclosures can be found in the abstract here.

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