

Tumor Board Tuesday – Dr. Aditya Bardia & Dr. Arielle J. Medford, 08/02/2022:

BRCA+ TNBC – PARP or I/O in First Line Treatment?

Posttest Rationale

1. **A 45-year-old female with germline *BRCA1/2* mutated TNBC develops liver metastases while on adjuvant pembrolizumab. What treatment would you choose next?**
 - a. Atezolizumab + chemo
 - b. Olaparib**
 - c. Pembrolizumab + chemo
 - d. Eribulin

Rationale: Given the patient was on pembrolizumab at the time of metastatic recurrence, this is an instance where olaparib monotherapy would be indicated, given the germline *BRCA* mutation. This indication is based on results from the OlympiAD trial.

Reference: Robson ME, Tung N, Conte P, et al. OlympiAD final overall survival and tolerability results: Olaparib versus chemotherapy treatment of physician's choice in patients with a germline *BRCA* mutation and HER2-negative metastatic breast cancer. *Ann Oncol*. 2019;30(4):558-566. doi:10.1093/annonc/mdz012

2. **A 45-year-old female with germline *BRCA1/2* mutated TNBC develops liver metastases 2 years after completion of adjuvant capecitabine for TNBC. What treatment would you choose next?**
 - a. Olaparib
 - b. Pembrolizumab + chemo**
 - c. Talazoparib
 - d. Navelbine

Rationale: This answer is contingent upon the CPS score. If CPS ≥ 10 , first line therapy would be pembrolizumab + chemo per the KEYNOTE-355 regimen.

Reference: Cortés J, Cescon DW, Rugo HS, et al. LBA16 KEYNOTE-355: Final results from a randomized, double-blind phase III study of first-line pembrolizumab + chemotherapy vs placebo + chemotherapy for metastatic TNBC. *Ann Oncol*. 2021;32:S1289-S1290. doi:10.1016/j.annonc.2021.08.2089

Cortés J, Cescon DW, Rugo HS, et al. Pembrolizumab plus chemotherapy versus placebo plus chemotherapy for previously untreated locally recurrent inoperable or metastatic triple-negative breast cancer (KEYNOTE-355): a randomised, placebo-controlled, double-blind, phase 3 clinical trial. *Lancet*. 2020;396(10265):1817-1828. doi:10.1016/S0140-6736(20)32531-9