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Commentary

on *Diagnostics and treatment of BRCA-associated cancers with olaparib*
 — expert position statement

Proteins encoded by the suppressor genes *BRCA1* and *BRCA2* play an essential role in repairing DNA damage. Reducing or inhibiting the activity of the *BRCA1* and *BRCA2* genes due to mutations or chromosomal deletions induces oncogenesis. *BRCA* gene mutations occur in many cancers with varying frequency, from approximately 25% of patients with ovarian cancer, through 5–10% of patients diagnosed with breast cancer, to several percent in prostate and pancreatic cancers. Patients diagnosed with the above-mentioned cancers and *BRCA* gene mutations show different clinical characteristics, including different disease course and sensitivity to some anticancer drugs. The presence of *BRCA1* and *BRCA2* gene mutations is also a predictive factor for a new group of drugs, poly-ADP ribose polymerase (PARP) inhibitors. PARP inhibitors used in combination with other systemic anticancer therapies have improved the outcomes in patients with these cancers.

These circumstances justify the use of the *BRCA1* and *BRCA2* gene mutation testing in clinical practice in patients with breast, ovarian, prostate, and pancreas cancers. The frequency of genetic tests performed in the above-mentioned cancers is increasing but still has not reached the required level. This applies to ovarian and breast cancers, in which the *BRCA* gene status determines appropriate anticancer treatment, as well as prostate and pancreatic cancers.

There are many reasons for insufficient *BRCA1* and *BRCA2* gene testing, including lack of knowledge about diagnostic possibilities and the importance of detecting genetic disorders for appropriate anticancer treatment.

The expert position presented in the article “Expert position on the diagnosis and treatment of BRCA-related cancers with Olaparib” is important for wider use of *BRCA1* and *BRCA2* gene testing. This article presents the impact of *BRCA* gene mutations and methodology of genetic testing, as well as the value of treatment with a PARP inhibitor, such as olaparib. I encourage all readers of “Oncology in Clinical Practice” to read the article.

Article Information and Declarations

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Conflict of interest

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Supplemental material

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