Cooperation between clinicist, molecular biologist and geneticist. From hobby to predictive factor – how drugs change the world.

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Results of SOLO 1 survey revolutionize our approach in treatment of ovarian cancer. From the beginning, patients with BRCA(+) and BRCA(-) mutations should be treated differently.

Introduction of PARP inhibitor, olaparib, in treatment of ovarian cancer fundamentally changed the approach in diagnosing pathogenic mutations in BRCA1 and BRCA2 genes. The possibility to use a drug with certain genetic mutations as predictive factor affects significantly the time, range and methods in genetic mutations diagnostics. Previous clinical practice mostly involved diagnosis of patients and their faimilies for germinal mutations, also included classical genetic counseling. During therapy planning, considering the frequency of BRCA mutations and also the time that clinisict should have the result of a genetic test, it is reasonable to determine the presence of a mutation starting from the tumor tissue. This approach shortens the diagnostics time and allow to detect rare germinal mutations as well as somatic mutations.

In diagnostics it is mandatory to take into account the type of a genetic mutation detcted in tumor tissue (germinal/somatic) and provide classical oncogenetic counseling and cascade diagnostics in families of a patients with germinal mutation. In case of patients with undetected germinal mutation, genetic counseling still applies to those with positive family history.

This model of detecting the BRCA1 and BRCA2 mutation is financed by National Health Fund (NFZ) and should be an obligatory model of approach within all patients with ovarian cancer in Poland.