PARP inhibitors alone and in combination with other biological agents in homologous recombination deficient epithelial ovarian cancer: From the basic research to the clinic

Hereditary epithelial ovarian cancer in germline BRCA mutation (gBRCAm) carriers has a distinct clinical behavior characterized by younger age, high-grade serous histology, advanced stage, visceral distribution of disease, high response to platinum and other non-platinum agents and better clinical outcome. Sporadic epithelial ovarian cancer with homologous recombination deficiency [HDR] but no gBRCAm has the same biological and clinical behavior as epithelial ovarian cancer in gBRCAm carrier ("BRCAness" phenotype). Biomarkers are in development to enable an accurate definition of molecular features of BRCAness phenotype, and trials are warranted to determine whether such HDR signature will predict sensitivity to poly (adenosine diphosphate[ATP-ribose] polymerases [PARP] inhibitors in sporadic epithelial ovarian cancer. Moreover, the link between PARP inhibition and angiogenesis suppression, the immunologic properties of epithelial ovarian cancer in gBRCAm carriers, the HRD induced by PI3K inhibition in epithelial ovarian cancer cells in vitro strongly support novel clinical trials testing the combination of PARP inhibitors with other biological agents.

Biography
Angiolo Gadducci is currently working as Professor at Department of Obstetrics and Gynecology, University of Pisa, Italy. He has extended his valuable service as oncologist has been a recipient of many award and grants. His international experience includes various programs, contributions and participation in different countries for diverse fields of study. His research interests reflect in his wide range of publications in various national and international journals.

a.gadducci@med.unipi.it

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