OVARIAN TUMOR ORGANOTYPIC SLICES CULTURES FOR FUNCTIONAL DRUG SCREENING (TOSCA)

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Introduction/Background Epithelial ovarian cancer is the leading cause of death among all gynaecological cancers in developed countries, mainly due to the lack of early diagnosis coupled with the frequent acquisition of resistance to available treatments. In particular, platinum-refractory and resistant patients have the worst outcome and the fewest therapeutic options. Early identification of these patients could limit useless undesirable effects and explore more effective therapeutic options. Short-term ex vivo assays might address such unmet needs, adopting a patient-centric perspective rather than a ‘one-size-fits-all’ approach.

Methodology Organotypic tumour slice cultures (OTSC) are three-dimensional ex vivo models obtained by precision cutting and cultured in an air-liquid interface to preserve viability. These 350 μm thick slices retain the complexity of tumour microenvironment without extensive manipulation and the fast tissue processing (2–6 days) allows short-term assays.

The primary objective is to evaluate the feasibility of OTSC establishment in high-grade serous ovarian cancer patients. Secondary endpoints include OTSC accuracy in predicting patients’ treatment response. Specifically, measurement of the redox index and reducing potential, through confocal microscopy and real-time luminescence, will be adopted to evaluate cell viability before and after treatment (carboplatin, paclitaxel, bevacizumab, PARPi, and immunotherapeutic drugs).

Finally, OTCS multi-omics characterization has been planned to investigate their mutational and transcriptional landscape.

Results The study is recruiting patients at Fondazione Policlinico Universitario Gemelli IRCCS in Rome. Results are expected in January 2025.

Conclusion If proven effective and reliable, OTSC could be considered an empirical predictor of patients’ response to treatments. The short-term drug screening evaluation that OTSC allow may provide useful information in a clinically meaningful window of time.

Disclosures The authors declare no disclosures.

MONITOR 25 – SURVEY ABOUT FERTILITY SPARING AND PRESERVATION IN PATIENTS WITH GYNECOLOGICAL CANCER

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Introduction/Background Fertility and fertility sparing and preservation in patients with gynecological cancer is a challenge to the treating physician. In this context we would like to hear your experiences and expertise.

Methodology We invite you to participate in a survey.

Results The aim of this survey is to assess your experiences in this field and your need for further training, networking and counselling regarding fertility sparing and preservation in patients with gynecological cancer.

Conclusion https://noggo.limesurvey.net/568855 (will be available in English soon)

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