Review of: "Extracellular Matrix Levels Modulate Outgrowths Dynamics in Ovarian Cancer."

Maria Angelica Miglino[1]

1 Universidade de São Paulo

Potential competing interests: The author(s) declared that no potential competing interests exist.

The MS " Extracellular Matrix Levels Modulate Outgrowths Dynamics in Ovarian Cancer " , aims to evaluate by imuno-chemical the ECM components (laminin j1 and collagens) in human OC.

According to the Authors ECM promotes outgrowth formation in uterine tube (non-aliated epithelial cells FNE) expressing mutant p 53 R175h and various OC cell lines.

Using methodology based on electron microscopy, optical coherence tomography (OCT) and small-amplitude oscillatory shear, the Authors described the elevation of ECM levels, increased thickness of the fibers and elasticity of ECM environments, showing according them ECM microenvironments modulating OC growth, providing additional explanation of why primary and recurrent ovarian tumors forms outgrowths that protute into the peritonial cavity containing ascites .

The MS reported the imuno-chemical evaluations of laminin j1 and collagens in OC representing disease progress before and after chemotherapy. Laminin j1 was predominantly associated with tumor cells, and collagens formed fibrillar networks surrounding microenvironment.

Results was performed by the ECM deposition in association with OC outgrowths, where laminin j1 and collagens were associated with OC before and after chemotherapy.

Finally, Authors demonstrated that OC cells that have recovered from chemotherapy are in direct contact with ECM deposited within tumors and extra-tumoral space. The ECM – reconstruction model of OC outgrowths offers a clinically relevant approach to examine e evaluation of recurrent phenotypes, such as outgrowths, associated with the disease. In order to analyses OC outgrowth dynamics like cells imaging, SEM, OCT, and rheology provided important play into the role of physical characteristic of OC cell microenvironment.

The ECM importance in a tumor microenvironment, is already described in other tumor types, however the importance of it modulating OC growth, providing additional explanation of tumor form that protrude into the peritonial cavity is something new and important for clinical applications.

OC cells detached from the tumor, assemblies to be malignant for the tube epithelium, etc . On the other nands the role of laminin j1 and collagens, can plays an important topic for metastasis.

According my opinion the MS bring a new review about the OC dynamics, and could be published.