

SUMY STATE UNIVERSITY
MEDICAL INSTITUTE



**BIOMEDICAL
PERSPECTIVES**

II

ABSTRACT BOOK

*International Scientific Conference
of Students, Postgraduates and Young Scientists*

(Sumy, October 20-22, 2020)

Sumy
Sumy State University
2020

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
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THE ROLE OF PSAMMOMA BODIES IN THE OVARIAN SEROUS ADENOCARCINOMA (LITERATURE REVIEW)

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Introduction. One of the current problems among women's reproductive system diseases is ovarian tumors. Each year the risk of this disease shows a tendency to increase. The pathognomonic feature of the morphological diagnostic of ovarian cancer is Psammoma bodies (PBs), which are represented by plasticized calcium structures and are placed in the form of concentration circles [Das]. Should be noted, that the process of pathological biomineralization is most common in serous papillary carcinoma, but the mechanism of PBs formation is not fully understood yet.

Aim. To investigate the features of the location of PBs and their diagnostic value in predicting the behavior of serous papillary carcinomas of ovaries.

Materials and methods. The analysis of scientific sources was performed by using the resources of the library-information center of Sumy State University (scientific and scientometric databases EBSCO, Case Files Collection, Scopus) and open scientific databases Pubmed and Google Scholar.

Results. Found out significant variations of the location and prevalence of calcifications in ovarian cancer tissue in the serous variant of the tumor lesions. PBs are formed intracellularly, both in tumor cells and in stromal histiocytes [Ferency]. However, biominerals in serous adenocarcinoma of ovaries are localized mainly in the stromal component of the tumor and much less in the epithelium. Should be noted that in single cases, PBs are localized in areas of degenerative changes of tumor tissue and in a vascular wall [Wen].

In addition, the presence and location of PBs in serous adenocarcinoma depends on the degree of malignancy of the ovarian tumor and are more common in highly differentiated serous tumors with a low degree. Important to note, that as a result of treatment, the percentage of calcifications in peritoneal metastases increases significantly compared to the initial level and reaches about 16% [Ganeshan].

Conclusion. Consequently, on the basis of the processed material, it is established that at an early stage of development of the tumor process PBs can create a protective barrier for spreading the neoplastic cells, and in some cases even to their death, which indicates the regression of the tumor process and favorable prognosis of this disease [Das]. At the same time, in the later stages of the development, PBs may be the consequence of biological changes of tumor cells characterizing the progression of the tumor process and an unfavorable prognosis in the future [Wen].

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