

# SOME MORPHOLOGICAL CRITERIA TO DEFINE MATURITY OF SEROUS TUMORS OF THE OVARIES

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## ABSTRACT

Morphological diagnostics of ovary tumors is very difficult due to a variety of histogenesis, existence of a big group of metastatic tumors and tumor-like pathologies. Because of peculiarities of the clinical course, frequency of malignization, borderline types of tumors which account for 10-15% of morphology and all epithelial tumors occupy a special place.

The goal of the research was to establish criteria of differential diagnostics of serous tumors of ovaries on the basis of the morphological investigation of the surgical material (343). For this purpose, we studied the changes in the secondary follicle area, nucleus volume of epithelial cells and ultrastructural organization of serous tumors of different maturity.

The researchers have revealed that during different ovary and uterus diseases (serous cystadenoma of ovaries, small-cystic degeneration, borderline cystadenopapiloma, dermoid cysta, adenocarcinoma, leiomyoma of uteri, adenocarcinoma of endometrii) the secondary follicle areas of ovaries are always reduced to a variable extent, compared to the norm. They are most of all reduced for serous cystadenoma ( by 89,8%), and the least of all for leiomyoma of uteri ( By 65,6%).

According to our data, in the case of serous tumors of different maturity, the volume of the epithelial nucleus of ovaries varies significantly. For adenocarcinoma of ovaries the epithelial cell volume is almost 5 times higher than that for benign cystadenoma and 2,5 times higher than the relevant data for epithelia cells of borderline types of cystadenoma.

Electron microscopy has shown that, as a rule, in the malignant tumor, compared to benign and borderline types of tumors, nuclei are strongly polymorphic, chromatin condensation and non-uniform distribution takes place. Mitochondria are also strongly polymorphic. In cytoplasm there is a great quantity of ribosomes, polysomes and vacuoles.

Thus, the results of the investigation indicate that changes in the secondary follicle areas are not an identification parameter for benign, borderline and malignant serous tumors of ovaries. An increase in the volume of epithelial cell nuclei during serous adenocarcinoma of ovaries, compared to benign and borderline cystadenoma, is a reliable parameter for process identification. To establish the degree of maturity of serous tumors, electron microscopy investigations should be of primary importance.