Abstract

Ovarian carcinomas are heterogenous group of diseases comprising various histotypes. Ovarian carcinomas as a whole are associated with the highest lethality among the female genital tumors. Currently, 5 main types of carcinomas are recognized: high grade serous carcinoma, low grade serous carcinoma, endometroid carcinoma, clear cell carcinoma and mucinous carcinoma. Other types, e.g. Brenner tumors, are very rare.

Ovarian carcinomas are very diverse group with various precursors, morphology, genetic aberrations, epidemiologic and clinical, features, therapy and prognosis. The most studied and understood is high grade serous carcinoma with high incidence (up to 70 % of ovarian carcinomas). The number of studies dedicated to this tumor is still increasing. Other types of carcinomas are much less frequent, therefore related studies are rarer.

Due to the rapid development of targeted therapy, it is necessary to evaluate the tumors not only morphologically but also on immunohistochemical and genetic level. Detection of neoantigens may indicate the mutation load of a tumor, it is also possible to evaluate status of mismatch repair (MMR) proteins and other features leading to chromosomal aberrations. In contrast to the high grade serous carcinoma, as for other types of carcinomas, knowledge about their genetic changes, mutation load, status of MMR proteins etc. are considerably limited.

Comprehension of rare types of ovarian carcinomas has diagnostic, predictive, prognostic and therapeutic significance.

Key words: ovarian carcinoma, immunohistochemistry, molecular genetics