

ABSTRACT

We take up previous thesis of place of supervizor workplace, which are targeted on ER, PR expression in uterus carcinomas and their potencional practical exploitation by this thesis. We have limited this broad issue for only endometrial carcinomas, because the cervix ones are tackled in a thesis of Lenka Nespěchalová.

We have searched out information from abroad and Czech literatures to upgrade previous review thesis of the supervizor workplace. Unfortunately the Czech literature doesn't dispose of so much clinical studies as foreign ones. We have observed tendency of Czech work places to publish the studies on the strength of foreign experiences. We have take up especially Marešková B. thesis, 2008 by this our one.

We have brought out the same data of our issue as Marešková. It's important not only to established total levels of steroid receptors, but as well as rates of individual isoforms PRA/PRB and ER α /ER β . Generally, progesterons are noted for their protective antiproliferative effect in endometrium, in detail the transcriptional repression is mediated by PRA isoform. On the contrary, PRB isoform activates the transcription of ER α , which causes the increased proliferation. Exactly PRB is supposed to be significant factor for progestin treatment. On the contrary, ER β disposes antiproliferative effect, caused by repression of ER α .

Consequently we have targeted also on the importance of the other molecular biological markers (Ki-67, bcl-2, c-erbB2, p53, PTEN, K-ras, GPR30, EphA2 and the others), that could explain more the process of cancerogenesis of endometrial cancer. This is the cause of the fact, that the value of some higher described markers are associated in a specific way with levels of ER, PR or with clinical-patological characteristics (age, stage, histological type, grade, depth of myometrial invasion, infiltration of lymph nodes). That's why these markers are prognostic factors, that could facilitate to find out the specific groups of women and categorize them for different type of treatment. These groups include especially carcinomas, which are poor in ER, PR expression or carcinomas without expression of steroid receptors. Nevertheless, we have found information about some markers in different clinical studies, that where in contrast among each other or their signification have not been

made clear yet (for example Her-2-neu, c-myc). Their signification would be made clear probably in future clinical studies.

The so - called dualistic model was described there in abroad and as well as in Czech literatures, that classified endometrial tumors into two groups – according to hormonal dependence. It means – endometrial tumors in which ER or PR is or is not expressed and on the base of the frequency of the other significant markers. There is the possibility of an overlap of some characteristics of endometrioid and nonendometrioid endometrial tumors. Diagnosis of ER, PR should be standard laboratory screening method in endometrial tumors. Endometrial cancers with the positivity of steroid receptors are considered in absolute majority of studies as tumors with good prognosis. Most of cases are adenocarcinomas incident in younger women, with low stage, with the good (= high) differentiation, without significant myometrial invasion. It's very important to establish sensitively the correct boundaries (cut-of point) for the receptors positivity to prevent putting into outcome mistakes. In the same way it's necessary to know about possibility of false positivity or false negativity of ER or PR (caused by hormonal therapy, menstruation cycle).