volved. Fate of the cells after process is done is one of the raised questions. Usually degradation of one cell is seen.

In some epithelial tumors of the kidney emperipoplesis was observed. In the last 5 years an entity called biphasic squamoid-alveolar carcinoma of the kidney was described and it has characteristics of papillary renal cell carcinoma with emperipolesis in the near proximity of large cells. The significance of this process in the kidney tumors has not yet been fully clarified.

Keywords: emperipolesis; kidney tumor; biphasic squamoid-alveolar carcinoma.

COMPARISON BETWEEN SURVIVIN AND KI-67 PROLIFERATIVE INDEX IN HER-2 POSITIVE AND TRIPLE NEGATIVE BREAST CARCINOMA

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Survivin is a member of the inhibitor of apoptosis (IAP) family. It is also involved in the regulation of cell division. Survivin is widely expressed in foetal tissues and in human cancers, but generally not in normal adult tissue. Apoptosis is the process of programmed cell death where senescent or damaged cells that are beyond repair are eliminated. It is a cascade of molecular events regulated by proteins that promote or prevent cell death. It is believed to be an important mechanism by which therapeutic chemotherapy and radiation therapy destroy cancer cells. Survivin is an anti-apoptotic protein that is overexpressed in most human cancers. Survivin regulates the G2/M phase of the cell cycle by associating with mitotic spindle microtubules, and it directly inhibits caspase-3 and caspase-7 activity. During tumorigenesis, survivin expression is inversely correlated with apoptosis inhibition and positively correlated with proliferation and angiogenesis. In our previous research, we observed immunohistochemical results of survivin and the relation between survivin and proliferative index Ki-67 in 50 cases of breast cancer in accordance with immunophenotype by St.Galen (2015g.). Survivin immunoreactivity was evaluated semiquantitatively according to the previous studies. Nuclear and cytoplasmic tumour cell immunoreactivities were separately assessed at 40 magnification, and were given an arbitrary score as follows: 0(0-5% positive cells); 1(5–20%); 2(21–50%);

3(51–75%); 4(>76%). A cutoff value of 20% was established as a positive result. Immunohistochemical analysis showed positive expression for survivin in 18 of 50 cases (36%) of breast carcinomas of TNM stages I to III. What we should emphasize in our study is the correlation between Her 2-positive tumours and survivin expression (p=0,007). What we can interpretate in our research is, that survivin is not expressed in luminal A or luminal B types of tumours, and its expression in nucleus is an indicator of better prognosis which is consistent with previous studies. Strong association of survivin expression in cytoplasm in Her-2 positive tumours is a predictor of unfavourable outcome. What stays unclear in our study is lack of survivin expression in triple negative tumour types, or positivity in small sized tumours which does not comply with results in previous studies. Our goal is to make larger study that would comprise 30 cases of HER-2 positive and 30 cases of triple negative tumors. We want to compare survivin immunoreactivity and proliferative index Ki-67 with other prognostic parameters such as tumor size, age of the patients, tumor grade and oestrogen receptor immunoreactivity.

Keywords: apoptosis; survivin; breast cancer.