positive, cytokeratin 13 and 20 negative. In addition, in both women cysteoscopy revealed no abnormalities. Based on the morphologic and immunohistochemical features the diagnosis of primary transitional cell carcinoma of the endometrium and the peritoneal cavity, respectively, was made. Transitional cell carcinoma is a rare, distinct subtype of gynaecological malignancy, which has morphologic features of urothelial differentiation, but retains a müllerian immunoprofile.

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Prognostic value of cell proliferation, growth and differentiation regulatory proteins in early stage cervical carcinoma

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Objectives: The aim of this study was to evaluate the immunohistochemical histochemical expression of cell proliferation, growth, and differentiation regulatory proteins in early stage cervical carcinoma and to assess their prognostic value by exploring their relationships to various clinicopathological characteristics (age, lymph node involvement, tumor diameter, depth of invasion, thickness of uninvolved cervical stroma, histotype, grade, lymphvascular space invasion, inflammatory infiltrate), human papillomavirus (HPV) status and influence on disease-free survival.
Methods: This retrospective study comprised 83 patients, all subjected to radical hysterectomy with bilateral pelvic lymphadenectomy for early stage cervical carcinoma and postoperative irradiation therapy. Expression of Ki-67, c-erbB-2, EGFR protein, as well as estrogen and progesterone receptors was evaluated by immunohistochemistry using avidinbiotin-peroxidase complex method. The results were assessed semiquantitatively in the surface area, center and invasive front of each tumor as the percentage of the immunostained cells and/or intensity of immunostaining for each protein. The presence of HPV was assessed by conventional in situ hybridization (ISH) technique and catalyzed reporter deposition signal amplification ISH using mixed biotinylated probes to identify types 6/11, 16/18 and 31/33 or 31/33/51. RESULTS: In our case series, 73 (88%) patients had a tumor limited to the uterine cervix less than 4 cm in diameter (pT1b1), while 10 (12%) patients had larger neoplasms belonging to pT1b2 category. Pelvic lymph node involvement was found in 20 (24%) patients. During the follow-up period (range, 65-181, mean, 121 months) recurrences were observed in 9 patients. The 5-, 10- and 15-year disease-free survival rate was 92.7%, 90.8% and 86.6%, respectively. Important predictive indicators of recurrence in the univariate analysis were pelvic lymph node involvement (P=0.0008), tumor diameter (P=0.035), depth of stromal invasion (P=0.029), histological type (P=0.0009), grade of differentiation (P=0.056), HPV DNA presence (P=0.056), HPV type (P=0.043), as well as Ki-67 (P=0.031), and EGFR protein (P=0.0066) expression in the tumor's invasive front. Among these variables, however, the histological type, HPV DNA presence, Ki-67 and EGFR protein expression were identified as independent significant prognostic factors for disease-free survival in multivariate analysis using Cox regression model.
Conclusions: The invasive front of carcinomas proved to be the most important area for the evaluation of prognostic significance of the expression of cell proliferation, growth, and differentiation regulatory proteins. In addition to the detection of HPV presence and morphological parameters, the evaluation of Ki-67 and EGFR protein expression may provide additional prognostic information in patients with early stage cervical carcinomas.

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CD57 is a reliable marker for monitoring natural killer cells in pregnancy. A morphologic and immunohistochemical study in endometrial and decidual paraffin embedded tissues of 88 women with recurrent miscarriage: Correlation with immunotheraphy results

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The role of NK cells in early pregnancy is still unknown and controversial. At the time of implantation the endometrium is populated by lymphocytes expressing antigens characteristic of Large Granular Lymphocytes which correspond to a minor population of NK cells and is due to contact with fetal antigens. In anembyonic and recurrent spontaneous abortions NK cytotoxicity was increased. Women with recurrent miscarriage represent a heterogeneous group and no single pathology can underlie all cases.The aim of our study was to investigate the presence, distribution and immunohistochemical profile of lymphocytic population and NK cells in endometrium and deciduas of 88 women with recurrent abortions. Furthermore we try to correlate the presence of NK cells with the immunotherapy results.
Material and methods: Endometrial and decidual paraffin embedded tissues were collected from 88 women with recurrent miscarriage (number of miscarriages n=1-4) in first trimester and of 10 women with elective termination of first-trimester pregnancy. The monoclonal antibodies CD19, CD20, CD45RO, CD4, CD8, CD57and CD16 were performed by an immunohistochemical method in order to investigate the immunological lymphocytic profile of endometium and deciduas. The immunotherapy included prezolone, aspirin, flaxyparin, anti-lympocytic serum and vaccinate from the futher(male) serum.
Results: The predominal lymphocytic population expressed in all cases of recurrent abortions was CD56+, CD16-cells. The number of these cells was slightly increased in recurrent abortions than in cases of elective termination of first-trimester pregnancy. CD56+ cells infiltrated the deciduas and the endometrium and invaded the endometrial glands. More lymphocytes were CD4+ than CD8+ and few cells expressed B-cell antigens (CD19, CD20). A subpopulation expressed CD57 positivity (26/88) and infiltrated the endometrium and invaded the endometrial glands, such as CD56+ cells done Fourteen women tried a new pregnancy, 6 were positive for CD57 cells and 5 of theme received immunotherapy resulting in live birth except one woman who aborted again. One woman did not received immunotherapy and aborted too. The rest 8 women did not expressed CD57 cells and gained live birth in all cases without any treatment.
Conclusions: NK lymphocytes that express CD56 and especially CD57antigen seem to play a crucial role in pathogenesis of recurrent miscarriage as they are not found in increased numbers in normal pregnancies. Women with recurrent miscarriage who expressed CD56 and CD57 in deciduas and endometrium seemed to benefit by immunotherapy and lead in successful pregnancies. This evidence indicate that CD57 revealed a subpopulation of NK cells responsible for a subset of miscarriages and could be a specific marker for this group. Farther studies including larger number of cases and more markers needed to investigate the pathogenesis of recurrent miscarriages and find new therapeutics goals.