

## CONTENTS

*Perspectives***Chromatin texture, DNA index, and S-phase fraction in primary breast carcinoma cells analysed by laser scanning cytometry**

Kuliffay P, Sanislo L, Galbavy S ..... 4  
The measurement of DNA content and SPF of tumours using laser scanning cytometry in breast cancer patients treated at the St. Elizabeth Cancer Institute completed by and correlated with other biological properties of the tumour cells may be a useful tool in assessing prognosis and clinical outcome of patients.

**Perspective and complexity of experimental cancer study. The secrets of tumorigenesis (To the Gupta's, Chaffer's and Weinberg's "perspectives" and to the Nurse's "horizons")**

Valaskova Z, El-Hassoun O, Galfiova P, Jakubovsky J, Danihel L, Hulin I ..... 9  
We would like to add to the "mysteriousness", our observations from the application of "identical" BP6 cells either intraperitoneally or subcutaneously. In connection with the concept that tumor development is not only a portrayal of cells proliferation, we could presume that different "environment" will result in structurally different tumors. Morphological differences observed are not significant, but they are present.

*Clinical Studies***Advanced detection and measurement of cells on membrane from peripheral blood by laser scanning cytometry (LSC) in early stage breast cancer patients**

Sanislo L, Kuliffay P, Sedlak J, Kausitz J, Galbavy S ... 13  
The aim of our study was the potential detection of circulating tumour cells (CTCs) in early stage breast cancer patients. Our approach was cell microfiltration through polycarbonate membrane as a concentration method suitable for CTC selection in peripheral blood. The isolated cells on membrane were further analysed by laser scanning cytometry.

**Immunity profile in breast cancer patients**

Hrubisko M, Sanislo L, Zuzulova M, Michalickova J, Zeleznikova T, Sedlak J, Bella S ..... 20  
The multifactorial pathogenesis of malignant transformation, it is supposed that deficiency of some immune mechanisms plays a considerable role in its development. The expression of IL-2 and IFN-gamma by T-lymphocytes was decreased in metastatic breast cancer patients, however IL-2 production was increased in patients in early stage disease.

**Bone mineral density in early breast cancer patients**

Spanik S, Spanikova B ..... 27  
Women with breast cancer receiving aromatase inhibitors are at increased risk of osteoporosis. Aromatase inhibitors completely block estrogen production in peripheral tissues. This therapy reduced the risk of breast cancer relapse. We confirm the influence of adjuvant AI therapy on decline of BMD in early breast cancer patients in our study.

**Radionavigated detection of sentinel nodes in breast carcinoma – first experience of our department**

Duchaj B, Chvalny P, Vesely J, Makaiova I, Durdik S, Straka V, Palaj J, Procka V, Aksamitova K, Skraskova S, Banki P, Kovacova S, Galbavy S ..... 33  
Biopsy and histological evaluation of sentinel lymphatic node limits the axillar node dissection only for cases of positive histological finding, decreasing the occurrence of postoperative complications related to the axillar node dissection. We refer

our first experiences on 61 patients with radionavigated sentinel node biopsy in breast carcinoma in the Oncological Institute St. Elisabeth from May 2006 to June 2008.

**Recombinant human thyrotropin in follow-up of patients with differentiated thyroid cancer**

Podoba J ..... 38  
Despite very good prognosis patients with previously treated well-differentiated thyroid cancer require lifelong monitoring for recurrent disease. Recent clinical trials have shown that measurement of the rhTSH-stimulated serum Tg concentration alone is the most sensitive way to detect residual or recurrent disease. Our first experience with this modern diagnostic method in 88 patients followed-up for differentiated thyroid cancer are in accordance with recent literature.

*Case Reports***Synaptophysin negative central neurocytoma**

Rychly B, Kalina P, Belan V, Galbavy S ..... 41  
Central neurocytoma has a significant morphological overlap with oligodendroglioma and clear cell ependymoma. Neuronal differentiation should be supported by immunohistochemical expression of neuronal markers, synaptophysin being the most reliable. However its expression might be variable and rarely even absent. In such situations, an accurate diagnosis is disputable and based on careful assessment of the histological features.

*Clinical Study***The expression of MCM-2 in invasive breast carcinoma: a stereologic approach**

Umit Cobanoglu, Sevdegul Mungan, Cemal Gundogdu, Safak Ersoz, Yavuz Ozoran, Fazil Aydin ..... 45  
Minichromosome maintenance (MCM) nuclear proteins are initiation factors which play active role in the regulation of cell cycle. There is no stereologic study on MCM-2 immunohistochemical expression in breast carcinoma. In this study, the immunohistochemical expression of MCM-2 of the invasive breast carcinomas was investigated using stereologic technique; we also evaluated the correlation with Ki-67, a traditional proliferation marker, and various clinicopathological parameters.

*Topical Reviews***Endoscopic treatment of praecancerous colorectal lesions and early colorectal cancer**

Mlkvy P, Majek J, Jurgos L, Makovnik P, Durdik S ..... 50  
Thermal ablative techniques are indicated for flat adenomas as an adjunct therapy after an incomplete EMR or piece meal polypectomy. Photodynamic therapy using ALA photosensitisation is effective in the treatment of multifocal lesions and also in combination with EMR or thermal ablative techniques.

*Viewpoint***Diastolic blood pressure as a major determinant of tissue perfusion: Potential clinical consequences**

Hulin I, Kinova S, Paulis L, Slavkovsky P, Duris I, Mravec B ..... 54  
Based on the outcomes of several clinical trials current guidelines for hypertension encourage more "aggressive" hypertension treatment compared to recommendations from the past. In clinical practice blood pressure is sometimes reduced even below normotensive values. However there is evidence that achieving too low levels of diastolic blood pressure during antihypertensive treatment has undesirable effects. Especially in the elderly a diastolic blood pressure reduction below 70 mm Hg should be avoided, because it is associated with increased mortality. We suggest, that monitoring the level of tissue perfusion in treated hypertensive patients might help to provide individually tailored therapy.