



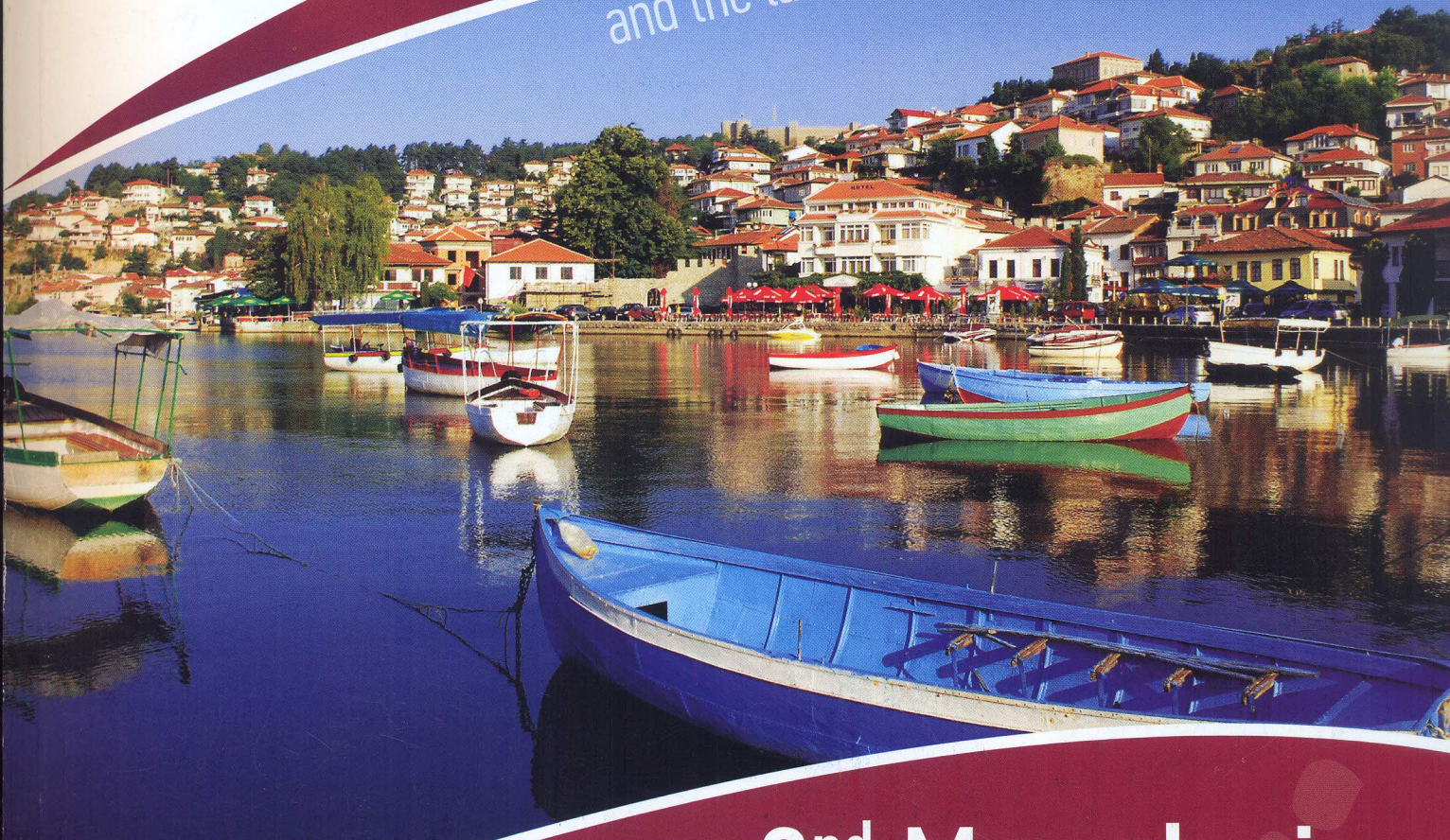
Macedonian
Association
of Pathology

IN COLLABORATION WITH
ESP BREAST WORKING GROUP



European
Society of
Pathology

SHARE AND EXCHANGE THE KNOWLEDGE
and the latest achievements in Pathology



2nd Macedonian Congress of Pathology

WITH INTERNATIONAL PARTICIPATION

European School of Pathology Workshop
Breast pathology in 21st century

September 1-4, 2016, Hotel Metropol, Ohrid, Republic of Macedonia

PROCEEDINGS & ABSTRACTS



PHI Histolab, Diagnostic Laboratory for Cytology and Histopathology, Skopje, Republic of Macedonia

Objective: One of the constraints of the conventional FNA smear is the limited material available for additional diagnostic investigations such as immunocytochemistry (ICH).

Material and Methods: The cell block technique employs the retrieval of small tissue fragments from a FNA specimen which are processed to form a paraffin block. It is widely accepted that cell block technique increases the cellular yield and improves diagnostic accuracy. The ability to obtain numerous tissue sections allows multiple immunostains to be performed similar to paraffin sections produced in histopathology. ICH today is accepted as an indispensable adjunct to cytomorphology.

Results: The most striking contribution for improved diagnostic accuracy has been among lymphoproliferative disorders and metastatic cancers of unknown origin. Today it is possible to diagnose and subclassify most lymphomas using cytomorphology in conjunction with ICH. This should lead to an expanded use and acceptance of cytology in the work-up of patients with lymphoproliferative disorders. A similarly marked effect has been observed in patients with carcinomas of unknown origin. Today such patients can, in the majority of cases, have their primary tumour identified. The use of ICH for targeted therapies started with the analysis of estrogen and progesterone receptors in patients with inoperable or metastatic breast cancer over 25 years ago. Today new markers such as CD20, Her2, EGFR, and CD117 are being used for targeted therapy. It has led to a dramatic increase in diagnostic accuracy and also allowed the identification of markers both for prognosis and targeted therapies.

Conclusions: In our laboratory ICH has been used in over 3000 cases as an adjunct to cytology for the last 3 years. This review will to a large extent be based on our experience, while important results contributed by others will also be included.

OF11

A new animal model of neuronal migration disorder caused by prenatal vitamin C deprivation in guinea pigs

*Ivan Capo*¹, *Natasa Hinic*¹, *Nebojsa Stilinovic*², *Nada Vuckovic*³, *Dusan Lalosevic*¹, *Slobodan Sekulic*⁴

¹*Department of Histology and Embryology, Medical Faculty, Novi Sad, Serbia,* ²*Department of Pharmacology and Toxicology, Medical Faculty, Novi Sad, Serbia,* ³*Department of Pathology, Medical Faculty, Novi Sad, Serbia,* ⁴*Department of Neurology, Clinical Center of Vojvodina, Medical Faculty, Novi Sad, Serbia*

Objective: The aim of the study was to investigate immunohistochemical characteristics of neurogenesis and gliogenesis of dysplastic cerebellar cortex in a new animal model of neuronal migration disorder caused by prenatal vitamin C deprivation in guinea pigs.

Material and Methods: The experiment included 40 fetuses of guinea pig sacrificed on the 50th day of intrauterine life. The first group of animals (N=20) was a control and the second was experimental, where mothers of fetuses were deprived for vitamin C from 10th to 50th day of gestation, when all animals were euthanized and brains of fetuses were removed and fixed. We analysed vermal region of cerebellum using neuronal (NeuN, calbindin, synaptophysin, and doublecortin) and glial immunohistochemical markers (PDGFR-O±, nestin, MBP, pTTT, olig2, and GFAP).

Results: In the analysis of dysplastic cerebellar cortex neuronal immunohistochemical markers show a morphological disturbance in

Purkinje cell development (calbindin) and still persisting normal neuronal differentiation (doublecortin) and maturation (NeuN, synaptophysin) in ectopic granular cells. Using glial markers we show alteration of the direction and structure of Bergmann glial cells.

Conclusions: With prenatal vitamin C deprivation and the consequential disturbance in collagen synthesis we caused pial basal membrane rupture and subsequent development of dysplastic changes in the cerebellar cortex. The experiment showed that although the granular cells are located in ectopic medium, they properly differentiate and mature. Having in mind the fact that neither humans nor guinea pigs are able to synthesize vitamin C, this animal model creates a new view in understanding the pathogenesis of neuronal migration disorder similar to lissencephaly type II in humans.

OF12

European quality assurance scheme for breast cancer services

Trpe Ristoski

Institute for Accreditation of the Republic of Macedonia, Skopje, Republic of Macedonia

Objective: The European Commission (EC) has initiated a project to develop a Quality Assurance (QA) scheme for breast cancer services. The scheme will be based on a revision of the European Quality Assurance Guidelines for Breast Cancer Screening and Diagnosis and is to be underpinned by accreditation in accordance with the provisions of EC Regulation No 765/2008. All aspects of breast cancer services including diagnosis, surgery, treatment, nursing care and palliative care will be covered by the QA scheme.

Material and Methods: The European QA scheme will need to cover all stages of care: Screening, Diagnosis, Treatment, Rehabilitation, Follow-up (including surveillance and, where necessary, management of recurrences), in addition to other aspects such as psychological support and palliative care, which are essential for a patient-centered concept of quality.

Results: An essential aspect of the scheme is the control of the various sources of risk inherent in diagnosis and treatment of breast cancer, via established and respected procedures based on evidence, best practices, and consensus, leading to an increase in quality of healthcare and a reduction of inequalities. European co-operation for Accreditation and National Accreditation Bodies will manage the scheme implementation.

Conclusions: Quality assurance scheme will provide a unique, evidence-based and publicly accessible scheme; there will be a legal procedure that will allow existing or new organisations to be accredited according to the QA Scheme and QA scheme requirements will be transparently agreed among a network of relevant stakeholders.

OF13

Surgical point of view in multidisciplinary treatment of osteosarcoma patients

*Milan Samardziski*¹, *Vesna Janevska*², *Violeta Vasilevska-Nikodinovska*³, *Roza Djoleva-Tolevska*¹, *Daniela Georgieva*¹, *Iliir Hasani*¹, *Igor Stojkovski*⁴, *Rezeart Dalipi*¹

¹*Department of Bone Tumors and Bone Transplantation, University Clinic of Orthopedic Surgery, Faculty of Medicine, University Ss. Cyril and Methodius, Skopje, Republic of Macedonia,* ²*Institute of Pathology, Faculty of Medicine, University Ss. Cyril and Methodius, Skopje, Republic of Macedonia,* ³*University Clinic of Surgical*