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PLOVDIV - BULGARIA



**1st BALKAN CONGRESS  
OF MEDICINE AND DENTISTRY  
FOR STUDENTS AND YOUNG DOCTORS**

**PROGRAM**

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***Plovdiv, October '97***

130. ANATOMICAL ANALYSIS OF ELEMENTARY MOVEMENTS UNDERLYING BASIC MARTIAL AND SPORTS TECHNIQUES IN KARATE-DO: MOVEMENTS OF THE LOWER LIMB

**S. Sivkov, Y. Diankov, G. Baltadjiev, T. Karamanlieva, T. Trifonova-Mashonova**

*Department of Psychiatry and Anatomy, Higher Medical Institute, Plovdiv, Bulgaria  
Bulgarian Shotokan Karate-do Association, Sofia, Bulgaria*

131. HUTCHINSON - GILFORD PROGERIA SYNDROME - ONE CASE MORE

**A. Peeva, V. Stoyanova**

*Department of Roentgenology and Medical Genetics, Higher Medical Institute, Plovdiv, Bulgaria.*

132. FAMILY HISTORY AND SOME OTHER FACTORS IN PRIMARY OPEN ANGLE GLAUCOMA

**M. Konareva-Kostianeva**

*Department of Ophthalmology, Higher Medical Institute, Plovdiv, Bulgaria*

133. CLINICAL OBSERVATIONS ON THE EFFECT OF NOVANTRON-CONTAINING REGIMENS IN TREATMENT OF NON - HODGKIN'S LYMPHOMA

**I. Nenova, V. Kirova, I. Karnolski**

*Department of Hematology, Higher Medical Institute, Plovdiv, Bulgaria*

134. ANAESTHETIC TECHNIC FOR VIDEO-ASSISTED THORACIC SURGERY

**D. Yondov, V. Kounev, G. Prisdov**

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135. UNILATERAL PULMONARY EDEMA DURING THORACOTOMY

**D. Yondov, V. Kounev**

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136. ULTRASOUND DIAGNOSIS OF VENTRICULAR DILATATION AND BRAIN HYPERECHOGENICITY

**I. Ivanov, A. Petrov, M. Nesterova, S. Mileva, V. Dimitrova**

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137. THE IMPORTANCE OF CHRONIC GASTRITIS IN MALIGN ALTERATION OF STOMACH MUCOSIS

**G. Murseli, N. Rugova, B. Maxhera**

*Faculty of Medicine, University of Prishtina, Kosova*



# First Balkan Congress of Medicine and Dentistry for Students and Young Doctors

*23-25 October 1997*

*Plovdiv, Bulgaria*

## CERTIFICATE OF ATTENDANCE

*Dr. Ivan Stefanov Ivanov*

*has made a presentation at the scientific session of the Congress.*

*[Signature]*  
**Prof. Dr. I. Dimitrov, PhD**  
*President, YSA "Asklepios"*

*[Signature]*  
**Prof. Dr. At. Djurdjev, DMSc**  
*Rector, Higher Medical Institute - Plovdiv*



## ULTRASOUND DIAGNOSIS OF VENTRICULAR DILATATION AND BRAIN HYPERECHOGENICITY

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**Background:** The transfontanel ultrasound imaging diagnosis of hypoxic-ischaemic encephalopathy and the subsequent atrophic changes rely on the visualization of brain hyper-echogenicity (BHE) and ventricular dilation (VD). The normal image undergoes an age-related evolution and imposes precise delineation of the criteria for BHE and VD.

**Methods:** Seventy eight normal infants were enrolled. They were divided into three age groups corresponding to the dynamics of the imaging findings: group I aged from 0 to 7 days; group II - 8 to 90 days; and group III - 3 to 12 months. The number of subjects in group I, II and III was accordingly 30, 24 and 24. The investigation was performed with a Contron Sigma 1 sector scanner and 5 and 7.5 MHz transducers.

**Results:** Rounded shape of the frontal horns on steep frontal coronal scan was observed only in 0, 9 and 9% in groups I, II and III respectively. This finding was never observed on the other coronal sections. Asymmetry in the lumen of the ventricles with the left one larger was found in 13, 25, and 8% for the three groups. A larger right lateral ventricle was observed in 3% only in

group I. Echogenicity around the frontal horns was discovered in 93% in group I, and in 33 and 8% in groups II and III. In no one of these the intensity of echogenicity was equal to or higher than that of the choroid plexus. Echogenicity around the bodies of the lateral ventricles was found simultaneously on coronal and parasagittal scan in only 1 infant which was enrolled in group II. Thalamic echogenicity that differed from normal mild homogeneous medial symmetric lucency was found in one patient in group II and in the other groups.

**Conclusions:** Rounded shape of the frontal horns of the lateral ventricles is a reliable criteria for ventricular dilatation. Caution is needed when only the left ventricle is dilated. Periventricular brain hyperechogenicity may be diagnosed when the intensity of the lucency is equal to or higher than that of the choroid plexus either on coronal scan for the region around the frontal horns or on two perpendicular scans simultaneously for the region around the bodies. The criterion for normal thalamic echogenicity is reliable.