30 millimetres in the different areas of the brain. Intrauterinely, there were discovered rhabdomyomas in 3 children in a term 35-37 weeks of pregnancy. In spite of focal lesions of brain structures, in all children were noticed generalized tonic-clonic seizures (resistant) from 5 to 10 a day. During the treatment of Topamax (to 10 mg/kg), frequency of attacks decreased, however, there was no control. Apart from anticonvulsants (Topamax) the children started to receive the preparation Vigabatrin (from 40 to 100 mg/kg).

Results: combination of anticonvulsant therapy led to the decrease in the number of attacks in 4 children from 1 attack in a day to 1 attack in a month. In 5 children attacks were halted.

Conclusion: this work stresses the necessity of timely magnetic resonance tomography and combination of Topamax and Vigabatrin for optimization of treatment of resistant epileptic attacks in children with a tuberous sclerosis.

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CONGENITAL CENTRAL HYPOVENTILATION SYNDROME IN THREE INFANTS

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Background and aims: Congenital central hypoventilation syndrome (CCHS) is a rare syndrome characterized by the failure of automatic control of breathing with absent or negligible sensitivity to hypercapnia and hypoxaemia, primarily during sleep. It is associated with a number of conditions affecting or derived from the autonomic nervous system.

Methods: Three infants with CCHS were diagnosed in our tertiary pediatric hospital over five years.

Results: All three infants were born full term. During neonatal period they presented prolonged apneas and intermittent cyanosis, in the absence of cardiac, pulmonary or neuromuscular disease. They were treated by tracheostomy and mechanical ventilation. After initial respiratory dependency, they became able to sustain normal gas exchange during wakefulness. Two of three cases had Hirschsprung disease and mild generalized hypotonia. One experienced seizures unrelated to antecedent hypoxemia and cardiac arrhythmias. Dilated,

nonreactive pupils and lack of circadian temperature variation occurred in one. Cerebrovascular malformations, tumors of neural crest origin and pulmonary hypertension were not observed. Mutations of the PHOX2B gene were detected in all cases. At the age of 2 to 5 years, they are still under ventilatory support during sleep. The eldest child has been successfully decannulated and he is on NIV through a nasal mask. All three children are managed at home, with adequate growth, progress in achieving motor milestones and low morbidity.

Conclusions: Infants with CCHS represent a spectrum of severity. With early diagnosis and careful ventilatory management these children can engage in activities typical of children of their age.

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THE ROLE OF sICAM-1, sVCAM-1 ADHESION MOLECULES IN THE HIPOXYC-ISHEMIC ENCEPHALOPATHY OF NEWBORNS

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Background and aim: Soluble intracellular cell adhesion molecule-1 (sICAM-1) and soluble vessel cell adhesion molecule-1 (sVCAM-1) produced from endothelium by the influence of hypoxia, infection, immunocomplex ensures migration of leukocytes transendothelial to ischemic tissue.

The aim of our work is to determine the level of adhesion molecules (AM) in Central Nervous System (CNS) damages of risk group newborns, and its role in this process.

Methods: Umbilical cord blood and peripheral blood serum samples of newborns were collected for measuring the levels of sICAM-1, sVCAM-1. CNS damages were determined by neurosonography and dopplerographic examinations.

Newborns are divided into 3 groups in order to determine the degree of causal relationship between the level of AM and CNS damages. 1st group (main group) included 35 (43,75%) newborn infants with CNS hypoxic-ischemic damages, 2nd group (comparison group) 25 (31,25%) newborn infants entering risk group but not observed CNS damages, 3rd group (control group) 20 (25%) healthy newborn infants whose condition are sufficiently appreciated.