

timeframes. Similar expression method was applied to hippocampi obtained from children with MTLE and normal controls.

Results The expression pattern for the miR-124, miR-134 and miR-9 nearly showed the same dynamics in the three stages of MTLE development to be upregulated in the acute and chronic stages and nearly equal to the control in the latent stage, they upregulated also in the children with MTLE.

Conclusions The significant upregulation for the brain specific miR-124, miR-134 and miR-9 in the seizures related stages and children suggested that both can be a potential targets for anti-convulsant drugs in the epileptic developing brains.

PO-0850 RESTING STATE NETWORKS IN PRETERM INFANTS WITH AND WITHOUT INTRAUTERINE GROWTH RESTRICTION

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Background and aims Prematurity and intrauterine growth restriction (IUGR) is associated with deviations of the developmental trajectory of the brain. We aimed to examine resting state networks (RSNs) in preterm infants with and without IUGR during natural sleep at 12 months.

Methods We included 30 preterm infants (<34 weeks) without focal brain lesions (12 with IUGR and 18 appropriate for gestational age) and 20 born-term infants that were scanned at 12 months during natural sleep. Structural and functional MRI was acquired in a 3T scanner. To account for head movement we performed frame censoring of the data. RSNs were computed using the MELODIC module (FSL software). Dual regression analysis was used to query between-group differences in RSNs.

Results Overall, the degree of movement on functional data was small. In the group we identified nine RSNs encompassing bilaterally the primary visual cortex, auditory cortex, sensori-motor cortex, lateral parietal cortex, precuneus, frontal and a sub-cortical network. Preterm infants had a more prominent cerebellar network compared to term infants. The three groups showed a fragmented default-mode network. No significant differences were found between groups.

Conclusions The spatial patterns of the RSNs observed in preterm and term infants corresponded closely to those observed in adults. These findings may suggest that IUGR and prematurity does not interfere with the normal process of functional brain network development at 12 months of age. The fact that we could not find differences in RSNs does not rule out that alterations could occur later in development.

PO-0851 SLEEP ISSUES FOR CHILDREN WITH CEREBRAL PALSY: WHY ARE CHILDREN AND THEIR PARENTS AWAKE AT NIGHT? A PILOT STUDY

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Background and aims Children with cerebral palsy (CP) and their caregivers often report poor quality sleep. A proportion of sleep problems can be linked to physical care needs associated with CP; need for repositioning, pain and hygiene. Simple but effective changes can be made to care regimes that may reduce sleep disturbance. However, sleep issues and the subsequent sleep solutions are frequently overlooked. The aim of this pilot study is to identify why children with CP and their parents/caregivers are awake at night-time.

Methods Parents of children with severe CP aged between 6 and 10 years were asked to complete a Time Use Diary (TUD) of their child's night from 6 pm until 9 am for two nights.

Results Eight families returned the study documents, yielding a total of 16 nights of TUD data. Two children slept uninterrupted for both nights. Two children experienced 11 awakenings over the two nights. The remaining 4 children woke 0–2 times across both nights. Waking time ranged from 15 min to 4 h. Reasons for children waking included; need for repositioning or comforting, distress, pain, restlessness.

Conclusion Children with CP and their parents/caregivers wake often and for long periods overnight. The TUD provided rich data in regards to night time awakenings for children with CP and their parents. This data can be used to design sleep interventions to address problematic sleep for this cohort. This study needs to be refined and repeated on a larger scale in order to gain greater breadth of information and validity.

PO-0852 WITHDRAWN

PO-0853 QUALITY OF LIFE IN CHILDREN WITH CEREBRAL PALSY AND ADHD BEFORE AND AFTER ADMINISTRATION OF TREATMENT

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Background and aims Attention deficit hyperactivity disorder (ADHD) and cerebral palsy (CP) are chronic diseases with major impact on quality of life (QoL) of children and their families. The goal of the study was to analyse the influence of pharmacologic treatment concerning the expression of satisfaction as key concept in the areas of life, compared to overall QoL and overall satisfaction on QoL.

Methods The scores assigned to the satisfaction in each area of life were statistically analysed with Wilcoxon test. For correlation analysis of the satisfaction in each area of life with overall QoL and overall satisfaction on QoL, non-parametric Spearman test was applied. Family Quality of Life Survey (FQOLS) - the version addressed to the main caregiver of the child with disability was used.

Results Wilcoxon statistic Z, applied to the comparison between the two time points of the scores for satisfaction in each area of life, resulted in associated statistical significance ($p < 0.01$) for all the areas for both CP and ADHD groups, for the difference between the two time points – before and after treatment.

Conclusions Pharmacologic treatment intervention influenced by a significant improvement the satisfaction in all area of life

considered in this case after the disease being treated which is consistent with the hypothesis.

PO-0854 THE BIG PICTURE: CASE REPORT OF AN INTRACRANIAL DISSECTING ANEURYSM

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Background Aneurysms affecting the posterior inferior cerebellar artery-vertebral artery complex (PICA-VA) represent 0,5–3% of all intracranial aneurysms and, in children, they are rarely recognised.

Most children present with eye symptoms, ataxia, headache, vomiting, limb paresis/paralysis and/or impaired consciousness. Neck pain, one of the hallmark symptoms in adults, is often absent.

Case report The authors present a 22 months infant, admitted at the Emergency Room after an episode of labial cyanosis and cutaneous pallor followed by prostration and altered gait pattern; without seizure or loss of consciousness. He presented hemodynamically stable, with right peripheral facial palsy, ipsilateral truncal imbalance and head rotation and refusal to walk. No evidence of oculoparesis, motor deficits or meningeal signs.

Brain CT-scan showed vascular dilation in the posterior cranial fossa, compressing medulla oblongata and pons structures. Angio-MR confirmed the presence of dissecting aneurysms of the right PICA and 4th segment of the right VA, with intramural thrombus and compression of the brainstem, without ischemia or bleeding.

A stent was placed in the PICA and an intravascular embolization coil in the VA. The child was discharged with no evidence of new neurological deficits.

An history of repeated minor head trauma in the context of tantrums was posteriorly clarified.

Conclusion In this case, as in literature, association between symptomatic PICA-VA aneurysms and minor head or cervical trauma seems possible. Often, there is no other underlying abnormality.

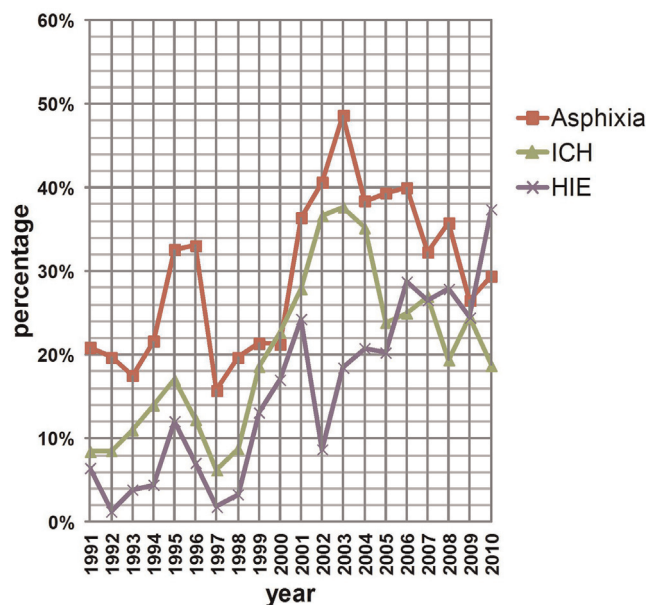
Despite the frightening presentation, prognosis is usually good. An endovascular approach seems to be safe and efficient in treating this condition.

PO-0855 DEVELOPMENTAL CONSULTANCY AT ZEMUN'S HEALTH CENTRE: RISK FACTORS IN NEONATES (1991–2010) WITH EMPHASIS ON ASPHYXIA, INTRACRANIAL HAEMORRHAGE AND HYPOXIC-ISCHAEMIC ENCEPHALOPATHY

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Background and aims To present at-risk factors in neonates („at-risk“ babies) to the total number of children born in Zemun (the large municipality in Belgrade) between 1991 and 2010; to sort risk factors with emphasis on asphyxia, intracranial haemorrhage (ICH) and hypoxic-ischaemic encephalopathy (HIE), as

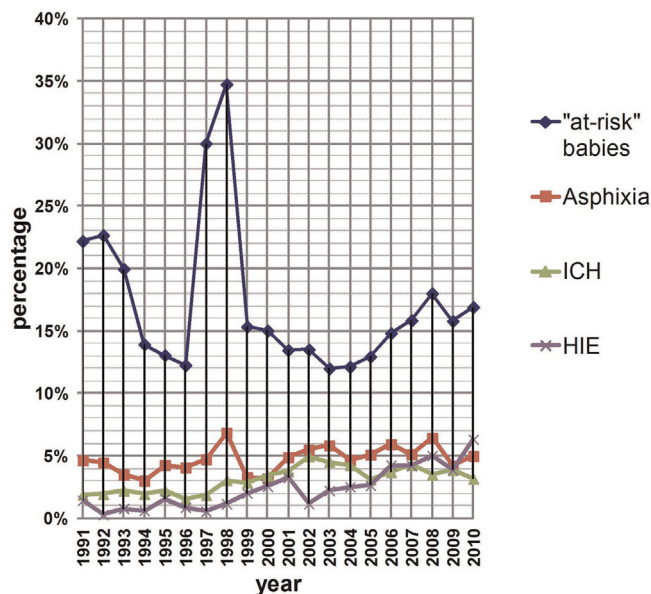


Abstract PO-0855 Figure 1 The number of „at-risk“ babies and risk factors to the number of babies

the most serious factors that could be responsible for brain damage and a number of disorders.

Method The study population of neonates observed and registered in the Zemun's Health Centre“.

Results During the twenty-year period (1991–2010) 20.716 babies were born (minimum 772 in 1993, maximum 1241 in 2009), among them 3.506 (16,94%) were „at-risk“ babies. In the period 1997–1998 it was evident increase in „at-risk“ babies, when the maximum was 34,73% in 1998, compared to the minimum of 12,00% in 2003 (Figure 1). A new increasing trend of „at-risk“ babies in the period 2003–2010 was noticed. Absolute and the relative change of the most serious risk factors are shown in Figure1 and Figure 2, respectively. Very often asphyxia was dominant over all risk factors (1995–1996, 2001–2006). ICH increased till 2002, both absolutely and relatively, after he



Abstract PO-0855 Figure 2 The number of risk factors to the number of „at-risk“ babies