

neonatal characteristics (OR 1.97; CI [1.30-2.98]). In contrast, the smoking-related increased risk of apnea was no longer significant after adjustment for gestational age.

Conclusion: Prenatal nicotine (snuff) is associated with a higher risk of neonatal apnea than smoking. This implies that it is not safe to recommend nicotine replacement therapy (NRT) for smoking cessation during pregnancy.

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LONG-TERM CARDIO-RESPIRATORY REGULATION IN CHILDREN WITH RETT SYNDROME

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Background: The cardiac and respiratory function requires an intricate coordination of afferent/efferent signals at several levels to secure homeostasis. Rett syndrome is characterised by a functional disintegration of physiological functions. Autonomic function in Rett syndrome has been studied mainly during short time spans (minutes-1 hour). In order to capture the full complexity of the autonomic function - a long-term study of the cardio-respiratory regulation was performed.

Methods: Patients with Rett syndrome in the Stockholm area were studied during one week in their home environment (n=15). Heart rate and breathing were recorded via standard three-lead ECG electrodes. The depth and frequency of respiratory movements were measured via changes in impedance. Oxygenation was measured by pulse oxymetry. Care takers were asked to fill out a form during the monitoring enabling us to analyze the correlation between behaviour and cardio-respiratory reactions.

Results: All subjects revealed respiratory dysfunction and a majority had bradycardia and/or tachycardia. In accordance with our previous findings, disturbances in cardio-respiratory function were present both when awake and asleep. Interestingly, there were pronounced variations in cardio-respiratory regulation from day to day and even from hour to hour in an individual patient. Furthermore, we also observed variations in cardio-respiratory events between individuals and situations.

Conclusions: Cardio-respiratory function in children with Rett syndrome is characterised by dramatic instability during wakefulness and sleep and differ among individuals. Cardio-respiratory regulation varies from hour to hour and between different situations in the individual Rett girl. Therefore, a long-term monitoring is decisive for adequate diagnostics and treatment.

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HEALTH STATUS OF CHILDREN ADOPTED FROM KAZAKHSTAN IN BELGIUM

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Objectives: evaluate the demographic characteristics and health status of children adopted from Kazakhstan at arrival in Belgium.

Material and methods: Retrospective review of data gathered at the Institute of Tropical Medicine (ITM).

Results: 17 children were seen in the ITM between from 01-2008 to 11-2009. Reason for adoption: 58% renunciation, 24% abandoned, 12% foundlings, 6% true orphans. All children lived in an orphanage prior to adoption. 29% were 'special needs' children. Age at arrival : 0,17 and 73 months; in 29% the birth date was uncertain.

Height z-scores and weight z-scores ranged from -4,38 to 0,82 (mean -2,02) and from -3,34 to 1,07 (mean -0,98). 47% of the children were stunted, 12% wasted.

The immunization status was complete in 42% and unknown in 29% of the cases.

Feces examination revealed *Ascaris lumbricoides* in 1/17 & *Opisthorchiasis* in 1/17. 3/7 of the children had serological evidence of *Strongyloides stercoralis* infection; thus far this has not been described in Kazakh children.

47% of the adoptees were in good health at initial examination. Dysmorphic features and malformations were present in 29%.

Conclusion: a considerable number of children had malformations, parasitic infections, or other problems. Stunted growth was present in a striking