

Selected Abstracts of the 11th International Workshop on Neonatology

FROM THE WOMB TO THE ADULT

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mediators that enhance endothelial damage already affected by concomitant lack of intestinal autoregulation.

Adverse outcomes in term of morbidity and mortality may occur in neonates after receiving leukoreduced RBCs older than 14 days, because of rapid biochemical storage lesions (also influenced by anticoagulant and additive solutions), which cause erythrocytes hemolysis consequently to lipidic membrane peroxidation with iron and hemoglobin release. This causes iron overload and oxidative reaction with alteration in immune function and exposure to infections.

Although TR-NEC pathogenesis remains unclear, strong evidences suggested a temporal association between NEC and transfusion, with higher prevalence in VLBW, lower birth weight and enteral fed. The predictable GI immaturity of preterm neonates and quality of blood products seems to act like the substrate of complex immune and proinflammatory mechanisms responsible for intestinal mucosal damage which occur at NEC onset. Knowledge of risk factors, breast feeding encouragement and prevention of anemia to avoid transfusions are required to prevent TR-NEC and improve clinical care.

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SNORING IN OBESE CHILDREN AND ITS CLINICAL SIGNIFICANCE IN AMBULATORY SETTING

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INTRODUCTION

Frequency of habitual snoring is significantly higher in obese than in normal-weight subjects. Obesity and adeno-tonsillar size are risk factors of snoring. Other factors, such as fat distribution and upper airway collapsibility, could explain the relationship between obesity, snoring and OSAS.

AIM

The aim of the study was to investigate clinical and instrumental significance of snoring in exogenous obese children referred to our department.

METHODS

A prospective respiratory sleep study was carried out from January 2014 to March 2015 in 36 consecutive exogenous obese children. Body mass index (BMI) and BMI Z score were calculated according to age and sex. Nasal patency, tonsil size, Friedman palate position scoring were also recorded.

An overnight limited-channel polysomnography was performed using a type III portable ambulatory device (SOMNOscreen™ PSG, SOMNOmedics GmbH, Randersacker, Germany). Statistical analysis was done using SPSS® Statistics 19.0 software for Windows®. The strength of the association between two variables (snoring versus respiratory variables or versus clinical scoring) was evaluated by calculating simple and partial correlation coefficients, adjusting for clinical scoring when appropriate.

RESULTS

Snoring, objectively measured by respiratory polysomnography, was associated with palate position and with oxygen desaturation index (ODI). The correlation between snoring and ODI completely disappeared when adjusting for palate position scoring.

CONCLUSION

Low palate position can be identified as an adjunctive factor that can contribute to making snoring and increased desaturation events possibly related to increased risk of upper airway collapsibility during sleep in obese children.