Childhood Obstructive Sleep Apnoea Syndrome – What' New?

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Obstructive sleep apnoea (OSA) is one of the most common forms of sleep disordered breathing in children. The diagnostic gold standard is nocturnal polysomnography (PSG). However this diagnostic service has limited availability particularly in resource scarce settings because it is expensive and labour intensive. Recently developed neural network-based automated analysis of nocturnal oximetry recordings provides reliable identification of OSA severity among children with habitual snoring and high pre-test probability of OSA, and thus may allow a diagnostic alternative for more timely diagnosis and intervention of the disease condition[1]. Childhood OSA is known to be associated with various morbidities, namely cardiovascular, metabolic and neurobehavioural complications. However, it is increasingly recognised that phenotypic variation in terms of end organ complications exists even for the same degree of severity of OSA. Recent research has tried to address the mechanistic pathways in the pathogenesis of paediatric OSA, and to identify biomarkers and factors to predict phenotypic variability of OSA related consequences and treatment response. An overview of recent studies exploring morbidity-related biomarkers in children with OSA will be given through this presentation[2].

1. Hornero R, Kheirandish-Gozal L, Gutiérrez-Tobal GC, et al. Nocturnal Oximetry-based Evaluation of Habitually Snoring Children. Am J Respir Crit Care Med. 2017 Jul 31. [Epub ahead of print]
2. Khalyfa A, Kheirandish-Gozal L, Gozal D. Circulating exosomes in obstructive sleep apnea as phenotypic biomarkers and mechanistic messengers of end-organ morbidity. Respir Physiol Neurobiol. 2017 Jul 1. [Epub ahead of print]