

DOI: 10.5152/TurkThoracJ.2019.413

[Abstract:0774] PP-379 [Accepted:Poster Presentation] [Sleeping Disorders]

Evaluation of Sleep Disorders in Children with Down Syndrome

Mina Gharibzadeh Hızal¹, Sanem Eryılmaz Polat¹, Dilber Ademhan¹, Nagehan Emiralioğlu¹, Özlem Kiper², Eda Utini², Ebru Yalçın¹, Deniz Doğru Ersöz¹, Nural Kiper¹, Uğur Özçelik¹

¹Department of Pediatric Pulmonology, Hacettepe University School of Medicine, Ankara, Turkey

²Department of Genetic, Hacettepe University School of Medicine, Ankara, Turkey

Objectives: Sleep-related breathing disorders are common in patients with Down syndrome. For this reason, polysomnography (PSG) start to perform more frequently in these patients in recent years and respiratory support instruments are recommended. The objective of this study is to assess the sleep-related respiratory disorders in children with Down syndrome at Hacettepe University.

Methods: An observational descriptive study was conducted on children with Down syndrome who underwent polysomnography (PSG) at Hacettepe University, from May 2016 to January 2019. Data were extracted from official PSG reports.

Results: The study included 42 children, 60% of whom were male. Obstructive sleep apnea (OSA) was present in 97.6% of children in which 28.5% of them had severe OSA. Only one patient's PSG result was normal. Central sleep apnea also was evident in 69%. The mean minimal oxygen saturation reached during events was 84% (min: 62- max: 93). Snoring was evident in 48% of children. The median body mass indexes were 17.28±4.7. The mean AHI was 21.25 (min: 0- max: 202). The mean AHI was 37.3 (min: 0-max: 228) during REM, and the mean AHI was 17 (min: 0-219) during non-REM. The mean arousal index was 7.16 (min: 0.2-Max: 28.3). The mean desaturation index was found to be 4.2±11.3. CPAP/BIPAP support was recommended in 27 (64.2%) patients after PSG

Conclusion: In this study, it has been shown that sleep-related respiratory disorders were seen as very common in children with Down syndrome. Most of the patients were given respiratory support after PSG. In addition, the majority of the families were not described any clinical signs of suspicion of sleep disturbance. Not only obstructive apnea but also central apnea observed in a significant number of patients. Therefore, it is important to perform PSG routinely in this group. Our study indicates the importance of routine PSG in patients with Down syndrome in accordance with the literature

Keywords: Down Syndrome, PSG, sleep