SLEEP IN INFANTS WITH PRADER-WILLI SYNDROME: ANALYSIS OF SLEEP PATTERNS AND EARLY IDENTIFICATION OF SLEEP DISORDERED BREATHING

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Abstract:

Study Objectives: To characterize sleep and sleep disordered breathing with Prader-Willi syndrome.

- Design: retrospective analysis of sleep studies.
- Setting: sleep lab
- Participants: 20 infants (14 boys; 6 girls), between 2 and 36 months old, who met criteria for Prader-Willi syndrome (PWS) and were not treated with growth hormone. In addition, we matched a subgroup of 10 of our patients by age; gender and BMI to a group of infants without Prader-Willi syndrome who had comparable levels of mild sleep disordered breathing, defined by apnea hyponea index (AHI) for further analysis.

Results: Sixteen (80%) of the 20 infants had sleep disordered breathing defined as AHI>1. Of them, eleven infants (55 %) had OSAS defined as Obstructive Index (OI)>1. Fifty seven percent of all sleep disordered events were central apneas and 43% were obstructive apneas and hypopneas. The analysis of sleep parameters showed that REM latency on the average was shorter than normal. When compared to age, BMI and gender matched non-PWS infants with a similar degree (mild) of sleep-disordered breathing, the finding of short REM latency persisted.

Conclusion: Infants with PWS at ages preceding the development of the syndrome related obesity already demonstrate some degree of sleep-disordered breathing. In addition, sleep patterns of infants with PWS show shorter than normal REM latency, a finding that has been described only in children and adults with PWS.

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