

# OBSTRUCTIVE SLEEP APNEA SYNDROME IN EARLY CHILDHOOD: CASE REPORT

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## INTRODUCTION

Obstructive sleep apnea syndrome (OSAS) in children is a common medical disorder, often associated with adenoid and tonsil hypertrophy. The prevalence of OSAS has been increasing due to alarming rates of obesity in childhood. This is a very concerning subject since there is a higher risk of cardiovascular outcomes in patients with elevated BMI and OSAS.

## CASE REPORT

Two and half year-old girl followed in the pediatric endocrinology clinic, due to obesity [Weight: 38kg(Z=+7.63) and BMI: 39.5kg/m<sup>2</sup>(Z=+8.57)], and other complications, such as: high blood pressure with microalbuminuria, retinopathy with arteriolar narrowing, insulin resistance, dyslipidemia, moderate concentric hypertrophy of the left ventricle and hepatic steatosis. She had lethargy and daytime somnolence, snoring and night apnea, needing emergency care in one of the apnea episodes. Overnight polysomnography revealed an apnea-hypopnea index (AHI) of 22.9/hour (<2), and an oxygen-desaturation average 81.9% and minimum of 56%. The diagnosis of severe OSAS was made, and adenotonsillectomy indicated, but due to no clinical conditions for a surgery procedure, ventilator support (BIPAP) and weight loss were proposed. Polysomnography under BIPAP use normalized and the patient evolved with clinical and life quality improvement. The child is still an outpatient, being followed by a multidisciplinary group and several pediatric specialties.



EVENTS	BEFORE BIPAP	UNDER BIPAP
Apnea-Hypopnea Index (AHI)	22,9/h	1,4/h
Oxygen Desaturation	81,9% (mean)	91,3% (mean)
Snores	Moderate/Frequent	None
Sleep Efficiency	Intensely reduced (70,1%)	96,8%
Microarousals Index	11,9/h	10,2/h

Table 1: Comparative data between polysomnography before and under BIPAP

## CONCLUSION

Severe obesity is often associated with snoring, apnea and/or daytime sleepiness, hypoactivity and an investigation regarding OSAS is necessary, even in childhood. Clinical or surgical treatment can improve sleep quality. On the other hand, increasing daily energy expenditure and weight loss enhance life quality and are able to prevent cardiovascular events.

### BIBLIOGRAPHY:

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