

A 15-Year-Old Boy with Mysterious Variability in Apnea-Hypopnea Index



Anna M. May, MD; Kamal Gandotra, MD; and Dennis H. Auckley, MD

CASE PRESENTATION: A 15-year-old boy presented as a direct referral for polysomnography for evaluation of snoring, unrefreshing sleep, and daytime sleepiness despite a self-reported average of 8 hours of sleep a night. The mother reported he snored intermittently, although there were no witnessed apneic episodes or fragmented sleep. He denied morning headaches. He reported that his sleep was generally unrefreshing and he would experience significant daytime sleepiness, especially after school or when doing his homework. However, his Epworth Sleepiness Scale score was only 3 of 24. He denied any symptoms consistent with a movement disorder, parasomnia, cataplexy, hypnogogic/hypnopompic hallucinations, sleep paralysis, circadian rhythm disorders, or insomnia. He reported a family history of sleep apnea in his grandfather.

CHEST 2018; 153(1):e9-e12

Physical Examination Findings

At the time of polysomnography (PSG), the patient had stable vital signs. His calculated body mass index was 17.7 kg/m². His Mallampati score was 2. Although he had a prior history of adenotonsillar enlargement, at the time of his PSG he was found to have normal-sized tonsils and adenoids. His nasal examination and the remainder of his head and neck examination were unremarkable.

Diagnostic Studies

The patient underwent a diagnostic overnight attended PSG, which showed intermittent snoring and an apnea-hypopnea index (AHI) of 66.0, with an obstructive AHI of 65.4 and a central apnea index of 0.5. Respiratory

events were present in all sleep stages, with no sleep state (non-rapid eye movement [NREM] vs rapid eye movement [REM]) predominance. The patient slept supine for the entire study. However, examination of the hypnogram revealed a significant change in the AHI from NREM (N2) sleep before (Fig 1A; AHI 84.4) and after the last arousal before the REM period (Fig 1B; AHI 0.0). In addition, the frequency of respiratory events during the first half of the REM period (Fig 1C; AHI 80.0) was significantly higher compared with the second half of the REM period (Fig 1D; AHI 20.0). Representative still photographs (taken from the recorded video) show the patient during these time points (Fig 2).

AFFILIATIONS: Division of Pulmonary, Critical Care, and Sleep Medicine (Drs May and Gandotra), University Hospitals Cleveland Medical Center, Case Western Reserve University, Cleveland, OH; and the Division of Pulmonary, Critical Care, and Sleep Medicine (Dr Auckley), MetroHealth Medical Center, Case Western Reserve University, Cleveland, OH.

Dr Gandotra is currently at the Department of Psychiatry, Louis Stokes Cleveland VA Medical Center, Cleveland, OH.

CORRESPONDENCE TO: Anna M. May, MD, University Hospitals Cleveland Medical Center, 11100 Euclid Ave, Mailstop WRN5067, Cleveland, OH 44130; e-mail: anna.may@uhhospitals.org

Copyright © 2016 American College of Chest Physicians. Published by Elsevier Inc. All rights reserved.

DOI: <http://dx.doi.org/10.1016/j.chest.2016.09.007>

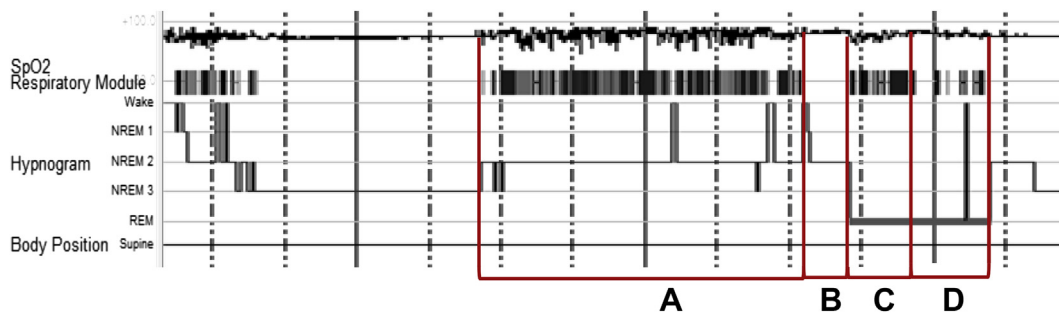


Figure 1 – Hypnogram displaying areas of (A) N2 sleep with high event counts, (B) N2 sleep with low event counts, (C) REM sleep with high event counts, and (D) REM sleep with low event counts. NREM = non-rapid eye movement; REM = rapid eye movement.

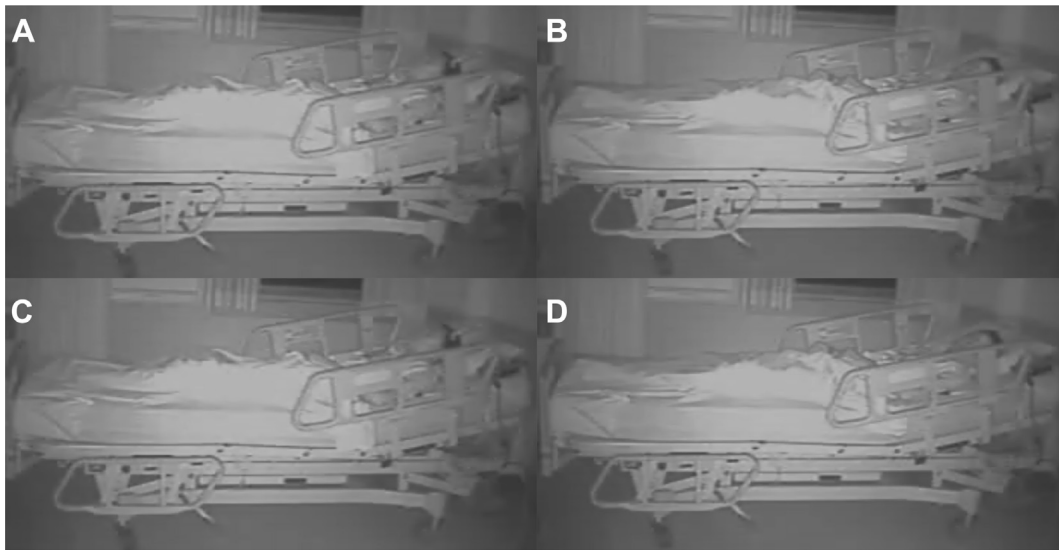


Figure 2 – Representative still photographs of the patient in (A) N2 sleep with high event counts, (B) N2 sleep with low event counts, (C) REM sleep with high event counts, and (D) REM sleep with low event counts. See [Figure 1](#) legend for expansion of abbreviations.

What is the diagnosis?

Download English Version:

<https://daneshyari.com/en/article/8658114>

Download Persian Version:

<https://daneshyari.com/article/8658114>

[Daneshyari.com](https://daneshyari.com)