



# Obstructive Sleep Apnea Awareness

## Case Vignette: OSA and Sleep Attack

### Presenting Complaints

A 58-year-old African American male, postal motor vehicle operator by profession, was evaluated in the Emergency Department (ED) following a motor vehicle accident. The patient's partner who was with him in the vehicle described him passing out while driving. The patient stated that he felt his eyes cross, and he lost consciousness within seconds.

### Past History

His past medical history included hypertension, chronic obstructive pulmonary disease, atrial fibrillation, and anxiety.

### Physical Exam

The patient had been in good health preceding the accident. He denied any associated symptoms such as palpitations, chest pain, or shortness of breath. No slurring of speech, confusion, numbness, or tingling was present prior to the episode. No tonic-clonic episodes were described by the partner.

- Trauma workup: Unremarkable
- Chest X-ray: Mild left basilar atelectasis and/or infiltrate noted.
- Computed tomography (CT) chest: No infectious findings noted.
- Head CT scan: Negative for hematoma, masses, or other findings that could explain the syncopal episode.
- Initial ECG: Sinus bradycardia.
- Echocardiogram: Ejection fraction of 64% with normal right ventricular systolic function.
- Blood work: Negative for significant anemia, hypoglycemia, electrolyte imbalances, or elevated cardiac markers.
- Urine toxicology: Negative for any substance use other than benzodiazepine; this was from a patient being on alprazolam 0.5 mg once a day as needed for anxiety.

### Testing

During clinical rounds, the patient was always found to be asleep with loud snoring. On further interview, the wife reportedly witnessed apnea events and multiple daytime naps. The attending physician then administered the [STOP BANG questionnaire](#).



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[The STOP-Bang questionnaire is a quick and easy screening tool with eight dichotomous (yes/no) items to assist in triaging patients with suspected OSA. It consists of 4 self-reportable (STOP: snoring, tiredness, observed apnea, and high blood pressure) and 4 demographic (Bang: body mass index [BMI; calculated as weight in kilograms divided by height in meters squared], age, neck circumference, and gender) items.]

Do you snore loudly? Louder than talking or loud enough to be heard through closed doors	No 0	Yes +1
Do you often feel tired, fatigued, or sleepy during the daytime?	No 0	Yes +1
Has anyone observed you stop breathing during sleep?	No 0	Yes +1
Do you have (or are you being treated for) high blood pressure?	No 0	Yes +1
Objective measures:		
BMI	$\leq 35 \text{ kg/m}^2$ 0	$> 35 \text{ kg/m}^2$ +1
Age	$\leq 50$ years 0	$> 50$ years +1
Neck circumference	$\leq 40$ cm 0	$> 40$ cm +1
Gender	Female 0	Male +1
<b>6</b> points STOP-BANG		<b>High</b> Risk for moderate to severe OSA

Figure 1. Results of STOP-Bang Questionnaire



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The patient had responded with a “yes” to all of the STOP questions. Being an older male of >50 years, he ended up with a total score of 6, consistent with a risk for moderate to severe OSA. The patient's primary care provider was also informed by this time.

Following a sleep specialist consultation, an overnight oximetry was performed in the hospital.

### Test results:

Oximetry revealed an oxygen desaturation index of 24.3/hour, with a pattern indicating OSA.

### Discussion of Treatment Plan

Given the significant findings on oximetry along with a history of severe daytime somnolence, the patient was set up for a polysomnography evaluation. A home sleep study revealed very severe OSA with an apnea-hypopnea index (AHI) of 98/hour. The patient was then started on an auto continuous positive airway pressure (Auto CPAP) device and was followed up in 45 days at the sleep clinic.

### Outcome of Case

At the sleep clinic appointment, the patient reported significant improvement in the daytime somnolence with no new sleep attack episodes. The compliance report from the CPAP showed adequate use with a reduced AHI of 3.5, indicating good control of the OSA.

### Teaching Points

Professional drivers are an understudied and medically underserved population, with high rates of obesity and related comorbidities. This was a case of motor vehicle accident that was presumptively diagnosed and worked up as syncope but turned out to be a very severe case of untreated OSA. Given the extensive workup, this patient likely had an episode of microsleep or sleep attack leading to the accident. The major workup for syncope or arrhythmia was negative. The severity of sleep apnea in the patient points toward the likelihood of OSA-induced sleep attack or microsleep.



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**Adapted from:** Wasey W, Wasey N, Manahil N, Saleh S, Mohammed A. [Hidden Dangers of Severe Obstructive Sleep Apnea](#). *Cureus*. 2022 Jan 23;14(1):e21513. doi: 10.7759/cureus.21513. PMID: 35223289; PMCID: PMC8862691.

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**This case highlights how OSA, often ignored and underdiagnosed, can present as syncope.**

This should prompt healthcare professionals to screen patients with no positive findings explaining syncope, with an overnight oximetry, during their hospitalization. Severe untreated OSA has been associated with disturbance to sleep quantity and quality, leading to sleep deprivation. It has been established that sleep deprivation leads to microsleep and sleep attacks, defined as unintended, sudden sleep episodes. Such attacks have been responsible for work-related and traffic accidents. Microsleeps have been a major concern for MVAs. Screening, treatment, and management of OSA should be a priority as a public safety policy, along with the benefits for the driver itself.



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## Additional Reading

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