PAP Therapy Data Provides A Clue To Co-Morbid Sleep Disorders

Case 5

CC: 70 year old female with a history of PTSD and moderate OSA

HPI: Patient was first evaluated for OSA in 2019 due to snoring, gasping/choking for air, witnessed apneas, and 3-4 episodes of nocturia per night with other spontaneous arousals. She had also gained weight over time.

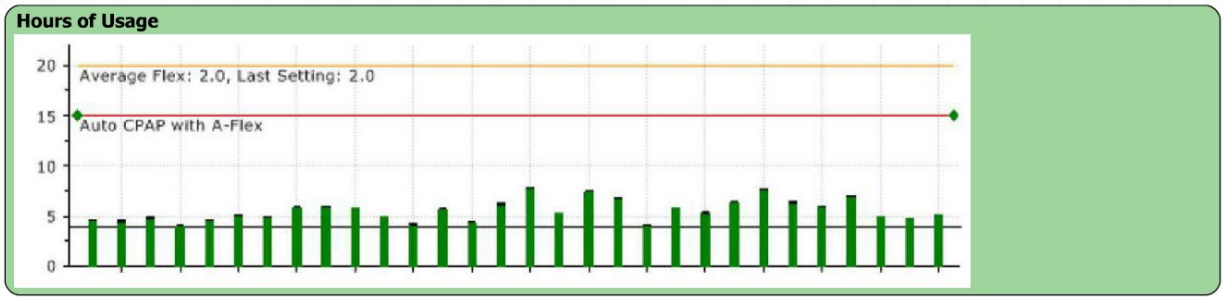
Home sleep apnea study: AHI of 20, supine AHI of 58, non-supine AHI of 14. Min O2 was 82%, with 14 min spent under 88%.

Subsequent history: In February 2020, she was started on PAP therapy at 5-15 cm. Due to claustrophobia and difficulty adjusting; she requested lower pressures of 5-8 cm H2O. She had initial difficulty tolerating PAP.

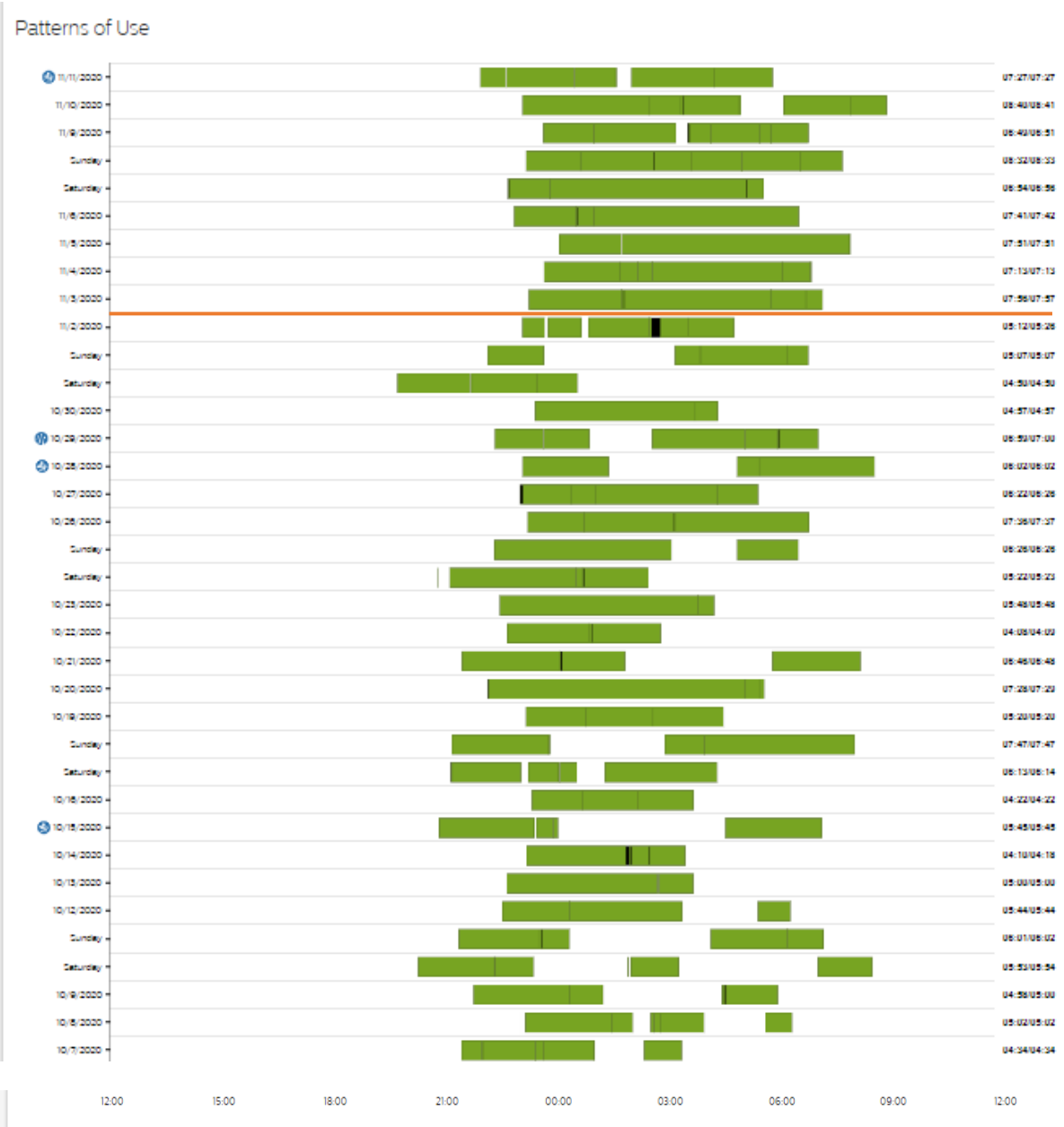
On follow up in August of 2020 she continued to complain of tiredness, with, dozing in the afternoons but also difficulty initiating and maintaining sleep. Epworth Sleepiness Scale was 12. Her PAP compliance had improved, with 30/30 days used, averaging 6 hours and 21 min. Residual AHI was 4.9.

Sleep Routine:
In bed at 11 pm with lights off but plays games on her phone and listens to books on tape with the PAP machine on. After an hour, she falls asleep. Once asleep, she wakes multiple times with anxiety. The arousal typically lasts minutes to hours.
Wake time is at 8 am, and she stays in bed until 9-10 am. The patient typically gets 8 hours sleep/night. Napping occurs rarely. She also reported irregular sleep times due to frequently working late.

PAP Compliance and Therapy Report (10/3/20-11/1/20)



PAP Therapy Timing Report (9/29/2020 – 11/11/2020)



Additional Diagnosis: Insomnia

Plan: She was started on a behavioral regimen to improve sleep, including restriction of time in bed and regularization of her sleep routine, with bedtime at 11:30 pm and wake time at 8:30 am. The red line on the PAP Therapy Timing report shows where she initiated the behavioral regimen, followed by improvement with more consolidated and regular sleep times.

Discussion:

The Therapy Timing Report initially reveals a fragmented sleeping pattern with multiple overnight arousals. Shorter arousals are demarcated by black bars where the mask was off her face but the machine was turned on. There are longer white gaps when the machine was turned off overnight. Although there is no way to determine if the patient was asleep during those gaps, the width of the overall sleep period is wider, suggesting reduced sleep efficiency. The Compliance and Therapy Report shows the OSA is well treated, suggesting this pattern is not due to uncontrolled OSA. This sleep pattern, her history of PTSD and anxiety, as well as poor sleep efficiency of sleeping 8 hours but spending 11 hours in bed support a diagnosis of insomnia.

After the behavioral intervention of setting a regular bedtime and wake-up time and limiting time in bed, the report shows a more consolidated sleep period with increased sleep efficiency, and more regularized bedtimes. This demonstrates that PAP Therapy Timing Reports can trend response to interventions as well.