Case Study: Patient With Fibromyalgia And Sleep Apnea

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History

A 54-year-old woman with widespread pain, fatigue, and insomnia presents to the healthcare provider’s office with complaints of excessive daytime drowsiness. The patient noted that she developed chronic widespread pain and fatigue following routine gynecologic surgery to treat endometriosis in 1993. Since that time, she has been seen by numerous specialists, including rheumatologists, neurologists, urologists, pain specialists, and gastroenterologists.

Past Medical History

The patient was initially diagnosed and treated for systemic lupus erythematosus, although testing was inconclusive and she has never developed any classic manifestations of the disease. She initially rated her pain on a visual analog scale (VAS) as 9 of 10, but now says that it is about 4 of 10. She has many syndromes associated with fibromyalgia (FM), including irritable bowel syndrome, irritable bladder, migraine headaches, fatigue, temporomandibular joint (TMJ) pain, restless leg syndrome (RLS), non-refreshing, nonrestorative sleep, and myofascial pain.

A neurologist has managed the patient’s migraines with the use of intramuscular lidocaine and corticosteroid injections. To stop the migraine, the patient takes a triptan agent, usually with good success. Her past medical history is negative for cervical spinal trauma or psychosexual trauma.

Medication History

The patient’s medication history includes failed treatment with duloxetine (Cymbalta) and milnacipran (Savella). Pregabalin (Lyrica) and gabapentin therapy produced weight gain and somnolence. Trazodone therapy caused excessive daytime sleepiness, zolpidem (Ambien) caused some complex sleep behaviors, and diazepam caused depression. Pramipexole (Mirapex) has helped her RLS and pain. Benadryl, which helps with sleep, exacerbates her RLS.

The patient’s current medication history includes tramadol 100 mg per night (Ultram); acetaminophen and hydrocodone (Vicodin), used sparingly; pramipexole 1.5 mg per night; clonazepam 0.5 mg per night (Klonopin); sertraline 25 mg/day (Zoloft); Tylenol PM, and zolpidem as needed.

The patient is a busy executive for a nonprofit organization who neither smokes nor drinks. She has a brother diagnosed with obstructive sleep apnea (OSA), but no family history of FM or RLS.

Medical Examination

On presentation, the patient complains of excessive daytime drowsiness. Epworth Sleepiness Scale is elevated at 21. Fatigue Severity Scale is elevated at 50. The patient admits to problems with drowsiness during the day that affects her ability to function, including falling asleep at work and meetings, having near car accidents, and having to take frequent naps during the day.

Circadian rhythm is quite variable due to her work schedule and multiple sleep issues, but she usually

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goes to bed around 1:00 am, wakes up at 5:30 am, and uses sleep aids. She has been told that she stops breathing at night. She has gastroesophageal reflux, and wakes up with headaches. Her RLS is managed well with pramipexole 1.5 mg taken at bedtime and she wears a bite guard for her TMJ. There is no obvious evidence of hypersomnia or narcolepsy. Sleep hygiene is poor. Table 1 provides results from the physical examination and Figure 1 illustrates the results of the sleep hypnogram.

![Click to enlarge](image1)

![Click to enlarge](image2)
Diagnosis and Treatment Plan

Based on the results of physical examination and polysomnography (PSG), the patient was diagnosed with FM, RLS, insomnia, and severe OSA. The patient was started on a regimen of sodium oxybate (Xyrem) 3 g per night, given in divided doses, to help treat the pain, fatigue, and sleep problems associated with FM. Although not FDA approved for this indication, sodium oxybate has been shown in large Phase III trials to reduce pain and fatigue, and improve sleep and function in patients with FM.1

Since the patient is intolerant to continuous positive airway pressure (CPAP) devices, the severe OSA was treated with an oral appliance therapy with mandibular advancement. The patient was continued on pramipexole for RLS and told to avoid Benadryl. The patient was instructed on good sleep hygiene practices and was given benzodiazepine sparingly to treat insomnia.

Follow Up

The oral appliance therapy was effective for OSA in this patient, as evidenced by nocturnal pulse oximetry findings and resolution of sleepiness, but her TMJ was exacerbated. It was recommended that the patient consider turbinate surgery and retrial of CPAP (with or without sodium oxybate) to assist with pain and sleep. Her RLS remained and was treated with pramipexole and avoidance of Benadryl. Her insomnia improved, but sleep hygiene remains a persistent issue. The patient had a significant reduction in fatigue and nonrestorative sleep while on moderate doses of sodium oxybate (3 mg/night); higher doses produced increase side effects that outweighed any additional sleep benefit.

References:


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