Managing Obstructive Sleep Apnea with Provent Sleep Apnea Therapy

70 year-old woman diagnosed with obstructive sleep apnea and successfully treated with nasal expiratory positive airway pressure

Sarah Stolz, MD

Introduction

Patient JV is a 70 year-old woman, with BMI of 33, diagnosed with obstructive sleep apnea (OSA) in 2008. She also has restless legs syndrome, hypertension and a history of thyroid disease and acid reflux.

A polysomnographic sleep study was performed showing an overall apnea-hypopnea index (AHI) of 28 events per hour, supine AHI of 52 events per hour and a nadir oxygen saturation of 77%. At this point, she was diagnosed with moderate severity obstructive sleep apnea, with moderate to severe oxyhemoglobin desaturations.

Treatment Approach

Continuous positive airway pressure (CPAP) therapy was recommended to treat her OSA. The patient declined CPAP because she did not wish to wear the mask or carry the machine during her frequent air travel.

Provent Sleep Apnea Therapy, a disposable, nightly-use prescription, nasal expiratory positive airway pressure (EPAP) therapy was offered as an alternative treatment. The patient found this option more appealing because of its small size, ease of use, and portability.

A sleep study was performed on patient JV with Provent Therapy showing dramatic improvements in her OSA in all sleep positions. Overall AHI was reduced to 1.8 events per hour and supine AHI was 3.5 events per hour (Figure 2) versus the overall AHI of 28 events per hour and supine AHI of 52 events per hour prior to treatment (Figure 1). The patient spent roughly the same percentage of sleep time supine in both studies.

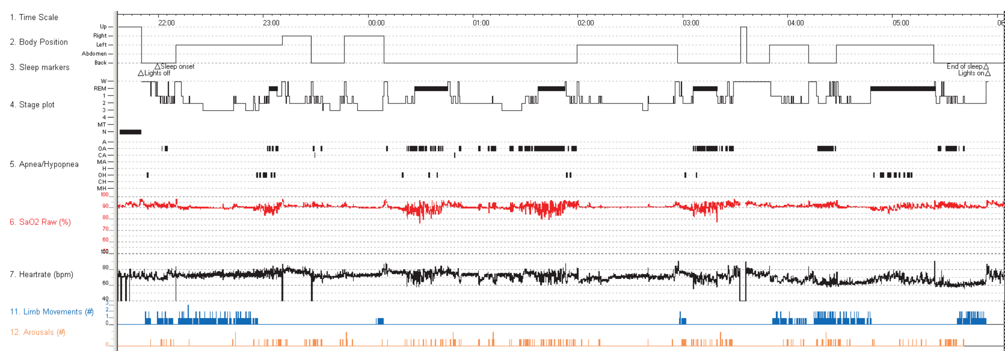

Figure 1: Patient's polysomnography hypnogram prior to treatment

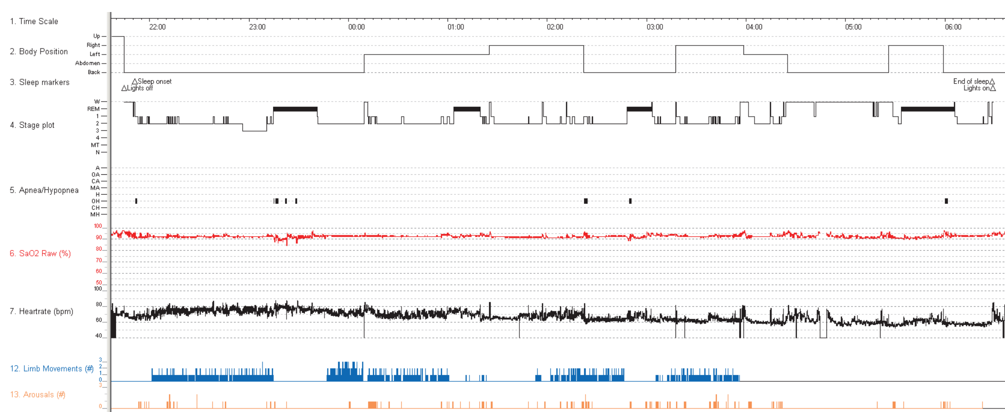

Figure 2: Patient's polysomnography hypnogram with PROVENT Therapy

MSM0069-01_B

Patient Feedback Regarding Provent Therapy

Upon follow-up interview, JV reported an excellent overall satisfaction level, noting that she

- Likes the discreetness and dignity that it provides
- Finds it easy to use and very comfortable to wear when falling asleep and during sleep
- Appreciates being able to effectively treat her OSA while living an enjoyable lifestyle
- Plans to continue using it every night indefinitely

Physician Summary

While nasal positive airway pressure is generally considered to be the gold standard treatment for patients with moderate to severe obstructive sleep apnea, some patients are unwilling or unable to use this therapy, and Provent Therapy provides a very welcome alternative treatment approach. In JV's case, this therapy turned out to be not only very well tolerated, but also very effective. JV currently reports a high level of satisfaction and compliance with the therapy after 10 months of use. Having this novel treatment provides physicians with an additional tool with which to treat apnea patients and allows patients to feel that they're not being "forced to use a machine."

Provent Therapy is a disposable, nightly-use, prescription device that incorporates a novel Micro-Valve design that is placed over the nostrils and secured with hypoallergenic adhesive. It is indicated for the treatment of obstructive sleep apnea (OSA) and works across mild, moderate, and severe OSA.

Sara Stolz, MD is a Diplomate of the American Board of Sleep Medicine and has been treating patients with sleep apnea for 19 years. She is Medical Director of Sleep Medicine Associates, which is based in the Seattle area and is the largest sleep medicine facility in the Pacific Northwest. This article was provided by Ventus Medical, Inc.

Editorial…continued from page 4

lifetime of smoking. They mentioned its detrimental effects: "I am poisoned." and"...it's a terrible condition but then it's self-inflicted with the cigarettes." Patients felt guilty about breathlessness; they felt responsible for having it brought onto themselves.

All patients had experience with inhalers and steroids, but inhalers offered minimal relief, and steroids caused side effects. Five patients relied on oxygen at home. Six had a nebulizer, two had purchased one on their own. They were unanimous that it helped their breathing and calmed them down.

Eight patients said they had never had any advice on how to manage their breathlessness: "I don't know what to do[...] you can't run to the doctor every 5 minutes, you can't run to casualty, you need to know how to deal with things yourself, [...] at least be discussing them..."

In the absence of professional advice one patient mentioned simple strategies: steam baths, a fan, open windows. Five patients went to PR classes. They learned the necessary skills and behaviors to self-manage and this gave them an acceptable quality of life. Only the patients who received PR said they cope reasonably well. Those who did not said that breathlessness inhibited every movement which led patients to reduce their activities even more, to the essentials. Gradual deconditioning made them realize that there is no "magic pill" for their suffering.

Disability was mentioned most frequently. They were often restricted to the home leading to social isolation. Disability caused financial hardship as they lost their jobs, partners took on the role of carer over time. They spoke of having problems with access to care. Stigma added to patients suffering. Patients were not prepared to face the future and expressed only to be able to cope with one day at a time.

The paper concluded: Integrated palliative care is needed, that makes use of all appropriate therapeutic options, collaborative efforts from health, social care professionals, patients and caregivers, and therapies that acknowledge the dynamic interrelation of the body, mind and spirit.

Les Plesko, Editor

*The lived experience of breathlessness and its implications for care: a qualitative comparison in cancer, COPD, heart failure and MND [ALS]. Marjolein H. Gysels and Irene J. Higginson, BioMed Central, BMC Palliative Care 2011, © 2011 Gysels and Higginson; licensee BioMed Central Ltd.

MSM0069-01_B