

Pondering the Paradigm

Could oral appliances someday supplant CPAP as a first-line defense against obstructive sleep apnea? The idea seems unlikely in 2012, but paradigm shifts in medicine are usually stealthy.

Change is slow because clinicians demand rigorous evidence before traditions are jettisoned. If that evidence continues to build, will physicians continue to embrace CPAP as the “gold standard,” or could the paradigm shift in this decade?

The fact remains that CPAP-intolerant patients are piling up, and dentists who specialize in sleep medicine want to help. Paying little attention to turf wars, tradition, or pondering paradigms, a growing number of sleep-focused dentists are working with primary care and sleep physicians to spread oral appliances to patients who need them.

Some sleep physicians simply have a bias against oral appliances, and that some are even content to refer patients for surgery before contemplating oral appliances. The American Academy of Sleep Medicine does not share that stance,” says Kent Smith DDS, a Dallas-based dentist who owns 21st Century Dental along with a sleep arm of the business called Sleep Dallas. “They suggest oral appliances prior to surgery. But it’s a fact that there are some sleep physicians who will never think of oral appliances—even for mild patients or primary snorers who would not qualify for CPAP.”

For Smith, it all comes down to: Will patients actually use the therapy? “I want the appliance with the best compliance,” says Smith. “And I would hope that at some point in the near future all of the different health professions will learn to work together to truly get the patient treated, without being as territorial as we seem to be right now. If we truly have the patients’ best interests in mind, we will educate them about all of the different therapies, and we will find what is best for each patient.”

What Really Works?

If dentists and sleep physicians are going to commit to oral sleep appliances, they want to know what works with some objective certainty. Executives at Dallas-based SomnoMed understood this desire and supported the development of SomnoMed MATRx™ (now FDA cleared) by Zephyr Sleep Technologies. Ralf Barschow, Global CEO of SomnoMed, touts the device as nothing less than a revolutionary breakthrough in the prediction of efficacy for the SomnoDent Mandibular Advancement Splint (MAS).

A typical MATRx scenario starts with a sleep physician who then refers the patient to a SomnoMed dentist to perform an oral examination and prepare the custom overnight oral appliance. From there, patients take the overnight appliance to a sleep lab, a sleep technician will titrate the patient’s mandibular position during the study, in response to apneas and hypopneas, with a goal to eliminate these events during REM sleep in the supine position.

To conduct a study with SomnoMed MATRx, the overnight appliance is attached to a small motor (50 grams) that is

remotely controlled by a sleep technician. “Using this process, sleep technicians can clearly see whether the patient is a responder or non-responder to SomnoDent therapy,” says Barschow, who also serves as president of SomnoMed North America. “The MATRx is analogous to a CPAP titration. For the first time, we are providing a means of predicting whether patients are suitable for an oral appliance. If they are, we can help determine optimal protrusive distance for their SomnoDent once they are returned to their SomnoMed dentist for further titrations.”

Oral Appliances Here to Stay

Respect for oral appliance therapy has reached a greater acceptance. “After Seattle and San Antonio, Minneapolis was the third time SomnoMed had a strong presence at APSS,” said Anthony White, vice president, SomnoMed Marketing & Academy. “Sleep lab managers and sleep physicians came and said, ‘the MATRx is the missing link here. The ability to prospectively predict which patients would be appropriate for SomnoDent therapy in a polysomnographic environment means we can, with confidence, provide patients that cannot tolerate or adhere to CPAP a second chance at therapy.”

White believes clinicians will continue to embrace oral appliance sleep apnea therapies, but only patient-focused and evidence-based ideas will succeed. “Our products are backed by independent clinical studies validating their use,” adds White.

MAS Fosters Compliance

Loyal customers are already familiar with SomnoMed’s MAS treatments, each with different clinical indications aimed at OSA sufferers. These include the SomnoDent® Classic, SomnoDent® Flex, and SomnoDent® Edent for the Edentulous patient.

The SomnoDent® is a custom-designed oral device that has been the subject of numerous stringent, independent, evidence-based studies that satisfy the need for safe and effective OSA treatment. The SomnoDent® has a number of design features such as a streamlined design with minimal bulk, which maximizes lingual space, reduces gagging, and offers a comfortable treatment with a compliance rate of over 87% all night (Am J Respir Crit Care Med Vol 163. Pg 1457-1461, 2001).

The company touts an excellent fit in both upper and lower arches with anterior and posterior contact for a stable occlusion, which prevents tooth movement and minimizes temporomandibular joint (TMJ) discomfort and injuries.

The SomnoDent is constructed in two separate pieces that allow patients to open and close their mouth. This allows clear speech, yawning, and drinking without requiring patients to remove the appliance. The ability to communicate clearly while wearing the device is particularly appreciated by patients and their partners.

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