Sleep and Breathing (2019) 23:579–580
https://doi.org/10.1007/s11325-018-1722-7

SLEEP AND BREATHING PHYSIOLOGY AND DISORDERS • LETTER TO THE EDITORS

The use of mandibular advancement devices in obstructive sleep apnea: a proven and effective therapy

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Received: 30 May 2018 / Revised: 5 September 2018 / Accepted: 8 September 2018 / Published online: 9 October 2018

It was with great interest that we read the pioneering study by Mintz and Kovacs, who conducted a retrospective study of the records of 2419 patients who were treated with customized titrated mandibular advancement devices (MADs) between 2002 and 2016. We welcome the study, not only because of its innovative approach, but also because of the scarcity of studies on the efficacy of mandibular advancement devices for the treatment of obstructive sleep apnea (OSA), a disease with a high prevalence in the world population [1].

This retrospective study allowed us an opportunity to compare the experiences of our Sleep Institute in Sao Paulo, Brazil, with these current results, particularly because about 22% (544) of the patients had been submitted to polysomnography prior to and after MAD treatment. The article mentions the difficulty of completing follow-up for all patients. It is important to stress the significance of this given that polysomnography (PSG) is the gold standard for the diagnosis of sleep apnea and for establishing apnea-hypopnea indices [2, 3]. If more patients had undergone both pre- and post-treatment polysomnography examinations, the 90% (459) success rate may well have been even higher as patients experiencing clinical success were less likely to return for further examinations.

We agree with the authors that there is a possibility of confirmation bias given the fact that all the patients were treated by a single professional in a private clinic with fees for the services performed. We speculate whether a study conducted in a general clinic in a research institution, for example, without costs to the patient and with a multiprofessional team trained using the same techniques and diagnosis criteria, planning, treatment, and follow-up, might produce even more consistent results and with broader application.

This multi-professional team involves laboratory technicians to undertake the exams, physicians, psychologists working with the pre- and post-treatment, physiotherapists, speech therapists, and dentists [4] trained in the treatment of sleep dysfunctions. This combination of professionals can promote a higher rate of patient return, and consequently produce better data on the effectiveness of oral devices for the treatment of OSA. It is clear that titrated and customized mandibular advancement devices when properly prescribed, installed, and monitored, could be truly a first-line treatment option for OSA [5], regardless of the degree of severity of the disease. This study has inspired and encouraged us to work towards greater use of MADs, always preceded and followed by PSG examination to evaluate the effectiveness of the treatment.

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Funding information Our studies are supported by grants from the Associacao Fundo de Incentivo à Pesquisa (AFIP). MLA, ST, and HH are CNPq fellowship recipients.

Compliance with ethical standards

This article does not contain any studies with human participants or animals performed by any of the authors. This article does not report research with human participants; thus, there is no consent declaration.

Conflict of interest The authors declare that they have no conflict of interest.

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