

Perspectives on snoring treatment

Patients' and sleeping partners' experience of treatment for sleep-related breathing disorders with a mandibular repositioning splint

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Aim

To determine in detail the complications associated with the use of mandibular repositioning splints (MRS) to treat sleep-related breathing disorders.

Method

This prospective cross-sectional cohort study audits the management with mandibular repositioning splints of 121 patients suffering from sleep-related breathing disorders. Investigation of patients' and sleeping partners' perspectives on treatment was undertaken with the use of a questionnaire based study.

Results

Sixty-eight per cent of respondents reported that they were compliant with treatment; various side effects were reported of which excess salivation was the most common. Investigation of sleeping partners' perspectives revealed that 70% felt that their partner's snoring was improved and 47% felt that their partners breathing pauses during sleep were reduced. Sixty-four per cent of the sleeping partners also reported that their own sleep pattern had improved since their partner's treatment.

Conclusion

Mandibular repositioning splints used in the manner described by this paper are demonstrated to have a good compliance rate, provide successful treatment and exhibit only minor, reversible side effects.

COMMENT

Snoring may be one of the symptoms of obstructive sleep apnoea (OSA), a condition many dentists may not have been exposed to during their undergraduate training. Affecting up to 2% of the population, OSA is defined as the repeated collapse of the upper airway during sleep, with associated snoring, reduction of sleep quality, and breathing pauses often lasting for many seconds. During sleep, this cycle can repeat many times, and in the daytime may result in poor concentration, lack of energy, and falling asleep, with potentially serious consequences for those operating machinery, or driving cars. Adults with sleep apnoea may develop hypertension, with increased risk of stroke or heart attack. Young children with similar breathing difficulties are often 'dopey' at school, lethargic, overweight and often suffer academically, socially and can be disadvantaged in their subsequent career prospects.

Treatment includes Continuous Positive Airway Pressure (CPAP) in which oxygen is forced into the lungs using pressurised facemasks; surgery of various types, which is painful, bloody, and which may not be always successful; and a simpler approach, outlined here, that uses simple intra-oral devices to posture the mandible forward and to open the airway by bringing the tongue forward.

This questionnaire study by Drs Bates and McDonald examines the improvement that can be achieved in mild to moderate cases of OSA by using such a device, not just from the patients' but also from the sleeping partners' perspective.

Approximately one-third of all respondents were unable to wear their appliances, but of the remainder, significant improvements in sleep quality were reported. The partners' observations of the quality of sleep is probably more accurate than that of the patient. Both patients and partners reported that in 70% of cases, snoring had improved, with sleep quality improving in 59% of patients; partners reported that breathing pauses had improved in 47% of patients. The partners reported that significant improvements in their own sleep had occurred in 64% of cases.

Snoring is often regarded as a nuisance, but it can impact on the patient's family and be symptomatic of a potentially life-threatening condition. This study shows that the use of mandibular splints can improve both quality of life and sleep for patients and their partners. These appliances are simple to construct, constitute a harmless and reversible procedure, and every dentist should know how to provide patients with them. It is not often that we dentists have an opportunity to save lives.

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doi: 10.1038/sj.bdj.4813152

IN BRIEF

- Mandibular repositioning splints can be used to treat the symptoms of sleep-related breathing disorders with high rates of compliance and highly positive reported treatment outcome.
- Much of the suffering caused by sleep-related breathing disorders is borne by the sleeping partner.
- The majority of patients experience only mild, reversible side effects during MRS therapy.