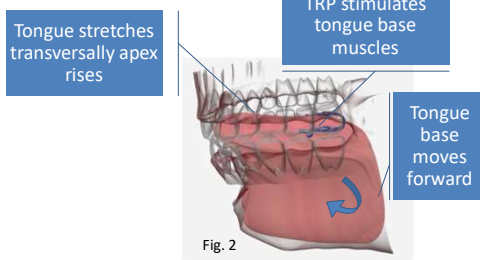
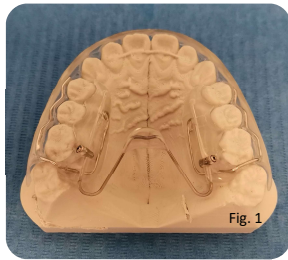


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INTRODUCTION

The Tongue Right Positioner (TRP, figure 1) is installed in the upper jaw and exerts its effect by bringing the tongue stimulation arch into contact with the tongue (Figure 2) and activating the neuromuscular control mechanism of pharynx dilatation^{a,b,c}. It is a novel treatment for obstructive sleep apnea (OSA). Because knowledge of TRP in OSA treatment is insufficient, it is difficult for dentists to judge the suitability of TRP. Therefore, in this study, we investigated the efficacy of TRP for OSA using the apnea hypopnea index (AHI) and percutaneous oxygen saturation (SpO₂) as indices.

MATERIAL & METHODS



- Mono-maxillary removable appliance
- Permanent sensorimotor stimulation of the tongue
- Establishes physiological tongue functions and rest positions^d
- Promotes increased nasal patency^e
- Discreet, comfortable, good tolerance, compliance^f
- No iatrogenic effects

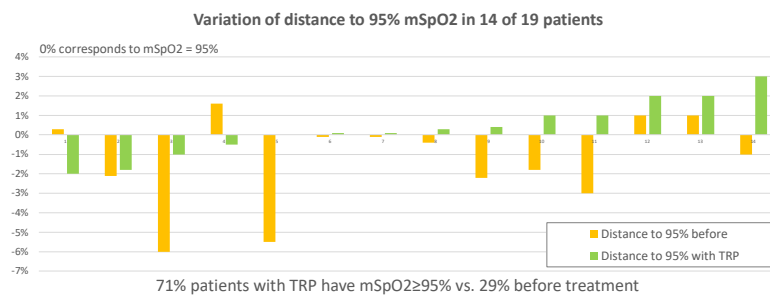
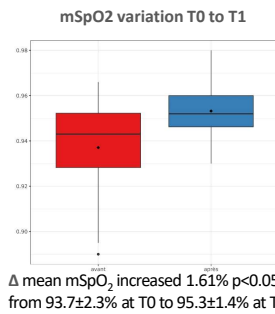
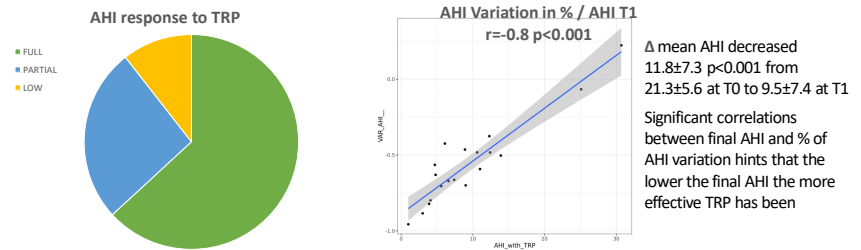
Observational multi-centric study on patients diagnosed with OSA. Sleep studies were carried out before (baseline, T0) and during treatment (outcome, T1) with TRP.

Gender	11 F - 8 M
Caucasians / Asians	13 / 6
Age (years)	50.1 ± 10.9
BMI (kg/m ²)	24.4 ± 4.5

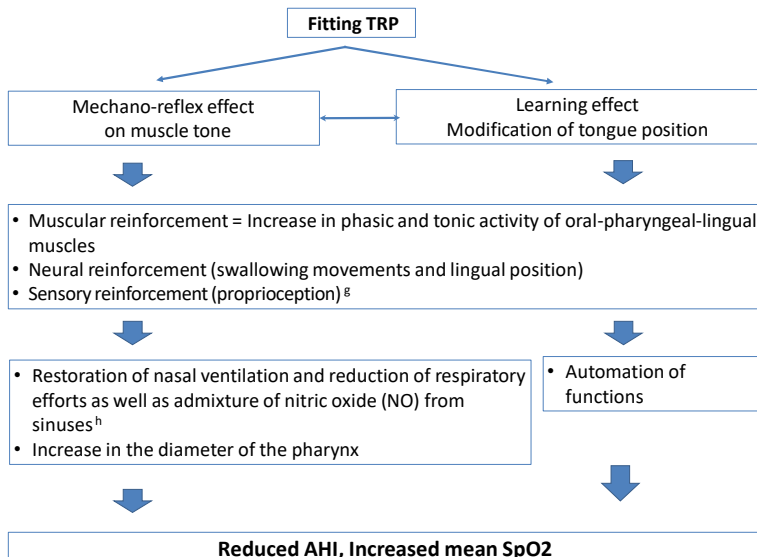
AHI range	10.6 to 30
No. patients with AHI >20 / >15 / >10	13 / 3 / 3
Mean SpO ₂ (mSpO ₂) range	89% to 96.6%
Average duration between T0 and T1 (months)	10.3 ± 8.6

RESULTS

- All 19 patients wore TRP all night from T0 to T1 (compliance of 100%)
- Complete response (AHI ≤ 10/h) was achieved in 12 of 19 patients (63%)
- Partial response (35% decrease in AHI and AHI < 15) was achieved in five of 19 patients (26%)
- Two patients (11% showed poor or no response to TRP (AHI > 15 and less than 35% reduction in AHI).



DISCUSSION



CONCLUSION

Up to now, mandibular advancement devices (MADs) have been reported to be effective in the treatment of mild to moderate OSA. On the other hand, adverse reactions such as TMJ pain, masticatory muscle pain, and occlusal displacement have been reported, and alternative treatments are being explored. In this study, TRP treatment not only significantly improved AHI and SpO₂, but also caused no discomfort to the user. The TRP treatment is expected to be a promising alternative to MAD for the treatment of mild to moderate OSA.

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CONFLICTS OF INTEREST

- Authors 2, 3 and 7 : clinical advisors or affiliated to Tongue Lab, manufacturer of the TRP. They received no financial compensation from Tongue Lab
- Author 6 : founder of Tongue Lab