Authors' response to letter to the editor concerning our SKUP³ trial

We thank Stradling and Kohler¹ for their comments on our publication, SKUP³ RCT. The authors of this correspondence report their worries concerning (a) which part of the uvulopalatopharyngoplasty (UPPP) contributed most to the improvements in nocturnal respiration, tonsillectomy or uvulopalatoplasty (UPP), and (b)

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if that UPPP adversely influences the future use of continuous positive airway pressure (CPAP).

The first worry (a) we agree concerning the difficulties when evaluating a twostage treatment. However, the aim of SKUP³ was to evaluate the effect of UPPP, which includes tonsillectomy per definition and has been a well-known surgical treatment for obstructive sleep apnoea syndrome (OSAS) since it was first introduced in 1981.2 Stradling and Kohler refer to a study of nine OSAS patients with large tonsils who underwent tonsillectomy with an 80% success rate, similar to that in children. Adult OSAS patients with large tonsils are few in number, only 6% according to one study.3 The majority have a soft palate and uvula that has been traumatised and deranged after several years of snoring and vibrations, leading to bulky tissue, which obstructs the airway during sleep. The results from our previous study of 158 OSAS patients undergoing UPPP showed that tonsil size was not a success factor.4 In our experience, tonsillectomy is important as a part of UPPP in OSAS also in patients with small tonsils, as it enables the lateralisation and suturing of the posterior tonsillar pillar, thus widening the airway space, and our studies support this view.

Furthermore, a meta-analysis of UPP showed an apnoea-hypopnoea index reduction of 32%, comparable with 33% in UPPP,⁵ indicating that the palatal operation also improves nocturnal respiration. However, randomised controlled trials comparing tonsillectomy, UPP and UPPP are recommended to further clarify this question.

The second worry of Stradling and Kohler concerns (b) whether UPPP influences future use of CPAP, referring to a study from 1996. The surgical method used at the start in the 1980s and 90s was more radical than it is today. We are performing only minor resections of the soft palate and uvula, that is, a modified UPPP. There is a scarcity of reports on this issue. However, a small Chinese study compared the classical UPPP with a modified UPPP and noted that all the problems with CPAP titrations occurred in the group of classical UPPP patients.⁶ Further prospective studies are also needed in this matter.

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REFERENCES

- 1 Stradling J, Kohler M. SKUP3 trial: comment. *Thorax* 2014;69:386.
- 2 Fujita S, Conway W, Zorick F, et al. Surgical correction of anatomic azbnormalities in obstructive sleep apnea syndrome: uvulopalatopharyngoplasty. Otolaryngol Head Neck Surg 1981;89:923–34.
- 3 Dahlqvist J, Dahlqvist A, Marklund M, et al. Physical findings in the upper airways related to obstructive sleep apnea in men and women. Acta Otolaryngol 2007:127:623–30.
- 4 Lundkvist K, Januszkiewicz A, Friberg D. Uvulopalatopharyngoplasty in 158 OSAS patients failing non-surgical treatment. *Acta Otolaryngol* 2009;129:1280–6.
- 5 Caples SM, Rowley JA, Prinsell JR, et al. Surgical modifications of the upper airway for obstructive sleep apnea in adults: a systematic review and meta-analysis. Sleep 2010;33:1396–407.
- 6 Han F, Song W, Li J, et al. Influence of UPPP surgery on tolerance to subsequent continuous positive airway pressure in patients with OSAHS. Sleep Breath 2006;10:37–42.

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