## SKUP<sup>3</sup> trial: comment

The paper on uvulopalatopharyngoplasty (the SKUP3 trial, September 2013 issue of Thorax) is a significant contribution to the literature on the surgical management of obstructive sleep apnea (OSA).1 The authors are to be congratulated on pushing through such a difficult trial with good control subjects. However, there is one concern that we have, which may alter the clinical conclusions that should be drawn. Patients for this trial were highly selected. In particular, none had had a previous tonsillectomy, and Friedman stage III (ie, only small tonsils) were specifically excluded. The Friedman stage I and II patients entered into this study had large tonsils by definition or, when there were only small tonsils, the tongue was low (suggesting they might still be important). Thus this study was very much one of tonsillar resection with an added, and limited, palatal resection. Therefore we do not know which bit of the operation contributed most to the fall in apnea-hypopnea index (AHI). The authors imply from their study and from previous data that, because tonsillar size did not predict degree of surgical benefit, the tonsillar resection contribution to outcome was likely to be limited. However, this argument is possibly flawed. Tonsillar enlargement is known to be important,<sup>2</sup> and patients with OSA will present with symptoms when the tonsils reach whatever is the critical size in that patient to cause obstruction, and this size is likely to depend on underlying pharyngeal dimensions (as it does in children<sup>3</sup>). Thus their removal, whatever the critical size reached, will help relieve OSA. We would be reluctant, based on this study, to ascribe surgical success to the palatal resection component (perhaps implied by the article's title) and wonder if

the success results more from the tonsillectomy, as is the case in children.<sup>4</sup> This trial should not be used as evidence to support palatal resection in OSA, especially given that this operation adversely influences the future use of continuous positive airway pressure (CPAP), should this be required.<sup>5</sup>

## John Stradling, 1 Malcolm Kohler2

<sup>1</sup>Oxford Centre for Respiratory Medicine, Oxford University, Churchill Hospital Campus, Oxford, UK <sup>2</sup>Division of Pulmonology, University Hospital Zurich, Zurich, Switzerland

Correspondence to Professor J Stradling, Oxford Centre for Respiratory Medicine, Churchill Hospital, Oxford OX3 7LJ, UK; john.stradling@orh.nhs.uk

## Competing interests None.

**Provenance and peer review** Not commissioned; externally peer reviewed.

To cite Stradling J, Kohler M. Thorax 2014;69:386.

Received 4 September 2013 Accepted 3 October 2013 Published Online First 22 October 2013



► http://dx.doi.org/10.1136/thoraxjnl-2013-204622

*Thorax* 2014;**69**:386. doi:10.1136/thoraxjnl-2013-204476

## **REFERENCES**

- Browaldh N, Nerfeldt P, Lysdahl M, et al. SKUP<sup>3</sup> randomised controlled trial: polysomnographic results after uvulopalatopharyngoplasty in selected patients with obstructive sleep apnoea. *Thorax* 2013;68:846–53.
- 2 Verse T, Kroker BA, Pirsig W, et al. Tonsillectomy as a treatment of obstructive sleep apnea in adults with tonsillar hypertrophy. Laryngoscope 2000;110:1556–9.
- 3 Brodsky L, Moore L, Stanievich JF. A comparison of tonsillar size and oropharyngeal dimensions in children with obstructive adenotonsillar hypertrophy. *In J Pediatr Otorhinolaryngol* 1987;13:149–56.
- 4 Marcus CL, Moore RH, Rosen CL, *et al.* A randomized trial of adenotonsillectomy for childhood sleep apnea. *N Engl J Med* 2013;368:2366–76.
- Mortimore IL, Bradley PA, Murray JA, et al. Uvulopalatopharyngoplasty may compromise nasal CPAP therapy in sleep apnea syndrome. Am J Respir Crit Care Med 1996;154:1759–62.

386 Thorax April 2014 Vol 69 No 4