BIS (Aspect A-1000, BIS version 3.3, Aspect Medical Systems Inc., Newton, MA, USA) derived from recommended electrode positions. EEG electrode impedances were <5 kΩ. The high pass was set at 0.25 Hz, no low pass was used, and the notch filter (50 Hz) was enabled. The EEG was continuously digitized at 256 Hz per channel and simultaneously with the other monitoring parameters recorded on a personal computer. Beta Ratio and SyncFast-Slow, two sub-components of the BIS were calculated from the digitized EEG from a 15 s time window with a 15 s averaging interval for parameter smoothing. For analysis, values at the last command before and at LOC and ROC were used (Fig. 1). Prediction probability (Pk) of the Beta Ratio and SyncFast-Slow were calculated and compared to the previously reported Pk of BIS. Statistical analysis was performed with two Excel Macros, PKMACRO and PKDAMACRIO, provided by Warren D. Smith Ph.D. (Professor, Biomedical Engineering Program, California State University, Sacramento, CA, USA). Pk values were compared using t-scores for paired data. We found that the Pk of the Beta Ratio was 0.825 (0.023) (Pk (SE)), and Pk for SyncFast-Slow was 0.73 (0.028). Interestingly, Pk of both subcomponents was higher than Pk of BIS (0.685 (0.029)). Thus, we conclude that for the separation between awareness and unconsciousness, SyncFast-Slow, the bispectral component of BIS related to the complexity of the EEG signal, may not add much information. In addition, in our data only the spectral component Beta Ratio separated awareness from unconsciousness to a greater degree than the composed parameter, BIS.

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Editor—We thank Dr Schneider and his colleagues for their interest in our work. We are also encouraged to see that the conclusions obtained from their analysis and data are very similar to our conclusions—namely that bispectral analysis of the EEG does not contribute greatly to the detection of loss of consciousness. The bispectral analysis may contribute to EEG quantification at higher concentrations of general anaesthetic. However, this remains speculation until such time as Aspet releases the details of how bispectral analysis may contribute to EEG quantification at higher concentrations of general anaesthesia. They have reduced this gap. This decreased the impingement rate to 18%.

However, the benefits of the soft tapered tip tube supplied with the intubating laryngeal mask airway (ILMA, Intavent), and available to buy separately, supersede the technique described. Lucas and Yentis,7 for the orotracheal route and Barker and colleagues3 for the nasotracheal route both showed the ILMA tube had a impingement rate of 0%, and Barker’s trial was blinded to the assessor. Though some concerns may be raised concerning the high-pressure cuff of the ILMA tube, the benefits of easy first-time placement of the ETT in awake fiberoptic intubation cannot be underestimated.

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Editor—I would like to thank Drs Macnair and Barker for their letter. I agree that the tracheal tube of the ILMA ETT is effective in reducing impingement. The ILMA ETT and the double setup ETT have not been compared in a randomized, controlled trial, so it is uncertain which is more effective in reducing impingement. However, the ILMA ETT does appear to have two advantages: it is simple to prepare and it can be used for nasal intubations. The double setup ETT requires knowledge of which uncuffed ETT fits inside which cuffed ET, and what length to cut the cuffed ETT. This may be a deterrent to its use, especially for occasional practitioners of fiberoptic intubation. Also, the double setup ETT is too short for nasal intubations. In contrast, the double setup ETT may be preferred for long-term intubation because of its low-pressure cuff. As noted in Drs Macnair and Barker’s letter, the ILMA ETT has a high-pressure cuff.

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2 Rampil IL. A primer for EEG signal processing in anesthesia. Anesthesiology 1998; 89: 980–1002