PREDICTING DIFFICULT INTUBATION

Sir,—Oates and colleagues [1] reported a useful study, comparing two published methods of predicting difficult intubation, and have added to the considerable recent literature encouraging preoperative attempts to predict difficult intubation as part of a routine to increase patient safety.

The authors acknowledged how important it is to perform the Mallampati test [2] correctly and, because observer 4 was not doing this during the study, subtracted the results for this observer. This gave a sensitivity to the Mallampati test slightly better than that for the Wilson test [3] and specificity and positive predictive value (PPV) slightly less.

After the authors removed the data of observer 4 from their results, nine difficult laryngoscopies (grades 4 and 5) remained. This makes it hard for the reader to obtain sensitivities of “0.40” and “0.50” in table III for the Wilson and Mallampati methods. Presumably this should have been “4/9” and “5/9”.

When I reviewed the data presented graphically in figure 3, and subtracted the observer 4 results, I obtained a lower proportion (about 11%) of patients for whom two observers disagreed over scoring when the Mallampati classification was used, than when the Wilson method was used (about 15%).

Previous recommendations have been made that some head extension should be added to the Mallampati technique to improve its accuracy [4, 5], but it is interesting that the single Mallampati predictor gave results comparable to those with the five-point Wilson method, although the Wilson method required five examinations. Although the results were comparable for the Mallampati method with apparently less observer variation (when observer 4 was correctly neglected), the authors preferred the Wilson method. It is significant however, that they declined to recommend it.

The study would have been more valuable if the authors had analysed their figures further, attempting to discover to what extent adding Mallampati’s examination improved the sensitivity, specificity and PPV of the Wilson classification.

The authors repeated our emphasis [5] that it is important for the anaesthetist to try to predict difficult intubation when presented with a patient at risk of regurgitation.

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REFERENCES

Sir,—Thank you for allowing us the opportunity to comment on Dr Bellhouse’s letter.

The values for sensitivity, specificity and positive predictive value (PPV) for observers 1–3 in table III were derived from data from a total of 543 patients. Of these, 10 (not nine, as stated in the text) were laryngoscopy grade 4 or 5, with five true positives for Mallampati and four true positives for the Wilson method. We thank Dr Bellhouse for drawing our attention to this error. The values in table III are correct.

The percentages of patients assessed by two observers, excluding observer 4, where the observers disagreed over predicting easy or difficult laryngoscopy were 11.8 (95% CI 6.8–16.8) for Mallampati classification and 15.6 (95% CI 10.1–21.1) for Wilson risk sum.

We did examine the effect of combining the Mallampati classification with the Wilson risk-sum, although this was not reported in our paper. Using the data for observers 1–3, we substituted Mallampati class for jaw movement in the Wilson risk-sum and took a modified risk-sum of 3 or more as a predictor of difficult laryngoscopy (to allow for the effect of the Mallampati class starting at 1). Complete data were available for 517 patients, of whom nine were graded difficult at laryngoscopy. Sensitivity, specificity and PPV were 0.44, 0.85 and 4.9%, respectively. If the Wilson risk score for head and neck movement and Mallampati class were summed, for a modified risk-sum of 3 or more as a predictor, sensitivity, specificity and PPV were 0.44, 0.91 and 8.0%, respectively. We found, therefore, that combining Mallampati with Wilson produced no significant improvement in sensitivity or positive predictive value over the individual tests.

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DIPRIVAN INTENSIVE CARE SEDATION IN CHILDREN

Sir,—We have received a number of reports of Diprivan (propofol) use in intensive care sedation of children, a use for which the product is not licensed or tested. Some of these reports have involved the occurrence of adverse neurological events during the recovery phase, ranging from minor twitching to convulsions and have also involved extrapyramidal events such as choreo-athetosis. The majority of children were aged between 6 months and 3 yr and many were being sedated with Diprivan for acute respiratory tract infections.

A common feature of all these cases is that the doses of Diprivan used (between 6 and 17 mg kg⁻¹ h⁻¹) were far greater than those suggested for adults (1–4 mg kg⁻¹ h⁻¹). Very often, accompanying analgesia was not used to avoid respiratory depression and this may have led to these excessive dose requirements.

We are aware that some doctors may wish to use Diprivan in this patient group, but without further clinical data we cannot recommend or support this practice.

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