Correspondence

POGO Score

To the Editor:

The results of Ochroch and colleagues' comparing percentage of glottic opening (POGO) score *vs* Cormack and Lehane grading,¹ confirm previous work by Cohen and colleagues, who showed that trained anesthesiologists are frequently unable to assign Cormack and Lehane grading correctly to a picture of laryngeal view.² Less than half of 120 British anesthetists correctly graded a picture of a difficult, grade 2 view.

Ochroch's study clearly identifies that greater sensitivity can be achieved using their POGO score. However providing some part of the glottis can be seen intubation difficulty is rare. The majority of difficult intubations occur when no part of the glottis can be seen. Rose studying more than 3000 patients found 84% of difficult intubations and all failed intubations were associated with inability to see the vocal cords.³ These cases are Cormack and Lehane grade 3-4: POGO score will always be 0% and so will provide no discriminating information.

I have described⁴ and recently evaluated a new practical classification of laryngeal view.⁵ The laryngeal view is *easy* (E) if any part of the glottis is visible. It is *restricted* (R) if only the posterior glottic structures (arytenoids, posterior commissure) are visible or when only the epiglottis is visible and it can be lifted. It is *difficult* (D) if only the epiglottis is visible but it cannot be lifted or if no glottic structures can be seen. Studying 500 cases the ERD classification correlated significantly better than Cormack and Lehane's grading with increasing difficulty with intubation (time taken and intubation aids needed).

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REPLY:

Thank you for your letter.¹ Our research and that of Rose and Cohen, shows that Cormack and Lehane grading has poor inter-observer reliability for assessing laryngeal exposure.² The POGO score is about quantification of laryngeal exposure. It does not address the prediction of difficult intubation, nor the difficulty of passing a tracheal tube. Adnet *et al.* has proposed an intubation difficulty scale that addresses seven components of intubation difficulty, only one of which is laryngeal exposure.³ In his study, many of the more difficult intubations (higher IDS scores) occurred despite adequate laryngeal exposure, while many of the intubations with lower IDS scores occurred in the setting of CL grade 3 views. For this reason, we believe it is best to separate laryngeal exposure and intubation difficulty. Although your scale has a simplistic descriptive appeal, it confuses the two issues by using the terms "easy" and "difficult" to describe different amounts of laryngeal exposure. It appears as though you are really trying to characterize intubation difficulty.

We believe that percentage of glottic opening score is a useful research tool for quantifying laryngeal exposure, particularly when used in conjunction with videotaping of laryngeal view.⁴ This research methodology can be used to assess exposure with different blades, the effect of laryngeal manipulation, and other aspects of direct laryngoscopy. For describing intubation difficulty, we suggest that Adnet *et al.* have appropriately included many other variables, in addition to laryngeal exposure, that impact on intubation difficulty.⁵

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Transesophageal echocardiography in the management of anaphylactic shock

To the Editor:

We would like to present the use of transesophageal echocardiography (TEE) in the management of anaphylactic shock.

After infusion of dextran, a 47-yr-old man suffered an anaphylactic reaction, consisting of hypotension and bronchospasm. Prednisolone and aminophylline were given and, after midazolam and rocuronium, the trachea was intubated. Large amounts of pink frothy fluid appeared in the endotracheal tube. In the ICU, mechanical ventilation was started with PEEP of 16 cm H₂O. A pulmonary artery catheter was inserted and a CVP of 20 mmHg and pulmonary capillary wedge pressure (PCWP) of 26 mmHg were measured. Chest X-ray showed massive pulmonary edema. Continuous infusion of epinephrine was started to maintain blood pressure (BP), but without success.

A TEE examination showed good myocardial contractility and no cardiac tamponade. Ventricular dimensions were small. However, CVP and PCWP were elevated, indicating a small circulating blood volume in a contracted vascular system, caused by massive extravascular fluid trapping in the lungs and vasopressor-induced vasoconstriction. Under TEE monitoring,

1500 ml of a gelatin colloid were infused until the ventricular dimensions appeared normal. The BP and SaO₂ improved to normal, while PAP and PCWP remained unchanged. Epinephrine was discontinued and hemodynamic variables remained stable.

Although infusion of fluids is generally necessary to treat hypotension during anaphylactic shock, we felt this may be hazardous in the presence of high PCWP and pulmonary edema. TEE was helpful in evaluating the intravascular volume status, and complemented pressure measurements of the PA catheter.

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Blind intubation using the Endotrol tube and a light wand

To the Editor:

The Endotrol tracheal tube (Mallinckrodt, Athlone, Ireland) is useful for blind nasotracheal intubation, since the curve of the tube can be controlled by a wire hook.^{1,2} We suggest that the use of a light wand (Trachlight [Laerdal Medical, New York, USA]) adds to the usefulness of the Endotrol tube.

A 25-yr-old woman had a fractured jaw a few months ago and was scheduled for reconstruction of the jaw. Preoperatively, the mouth opening was restricted to two-fingers width. General anesthesia was induced, and after adequate ventilation was confirmed vecuronium was injected. An Endotrol tube was inserted into the nose and oral laryngoscopy was attempted. Since the glottis could not be seen, blind tracheal intubation was attempted. However, location of the glottis was difficult due to the lack of spontaneous breathing, and intubation failed after three attempts.

Trachlight-aided blind nasotracheal intubation was then attempted while a fiberoptic bronchoscope was being prepared. After the inner metal stylet has been removed from the Trachlight, the wand was inserted into the Endotrol tube. By advancing the tube, illumination was seen in the side of the neck. This time, the tube position could easily be adjusted to the centre by rotating the tube and pulling the hook. The tube was further advanced, the wand was removed and the correct position was confirmed. The time for tracheal intubation was less than 30 sec.