

## Correspondence

### *More on "BURP"*

To the Editor:

The backward, upward and rightward directed pressures on the thyroid cartilage described by Dr. Knill did make seemingly impossible intubations possible and as Dr. Knill suggests these steps are necessary in practically all cases of difficult intubation. However, no adequate explanation was given; *why and indeed why always* to the right, backward and upward. Displacement of the larynx to the left and anteriorly during laryngoscopy – as suggested in my previous remarks – does explain the rationale of these corrective steps. In the cases described by Dr. Knill, the already anteriorly lying larynx was further displaced by the laryngoscope and correcting pressures had to be correspondingly greater. Taking this concept to its natural conclusion: displacement of the larynx to the left and anteriorly is inherent in the process of laryngoscopy. Only the degree of laryngeal displacement will differ from case to case. Most, and especially the difficult, intubations can be facilitated by accepting laryngoscopy as a bimanual procedure: *"the right hand correcting what the left hand is overdoing."*

If this concept becomes widely known and accepted – laryngoscopy and intubation will become a series of well planned logical moves. Since every step can be explained – the teaching of laryngoscopy could be more uniform, and less prone to individual – often conflicting – ideas.

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### *To Caesar what is Caesar's*

To the Editor:

Dr. Richard L. Knill in his recent excellent Review Article "Practical CO<sub>2</sub> monitoring in anaesthesia"<sup>1</sup> used the following quotation:

"Over the oxygen supplies of the body, carbon dioxide spreads its protective wings."

The quotation was attributed to "Samson Wright, circa 1955."

In fact, this quotation ante-dates Samson Wright. It can be found in the title page of Yandell Henderson's

book "Adventures in Respiration," published in 1938,<sup>2</sup> who attributed it to "Miescher, 1885." On page 20, in the Chapter on "Shock and Acapnia," Henderson mentions "The brilliant Swiss physiologist, Miescher of Basel, had assigned first place to carbon dioxide," in the days when the nervous control of breathing predominated. The full reference to Miescher is given on page 295, in the Bibliography, as follows:

Miescher, F: Arch. f. Physiol., 1885, Aus Histochemischen und Physiologischen Arbeiten von Friedrich Miescher, Leipzig, 1897.

Henderson gives his reasons for choosing Miescher's dictum. In page 1 he states "Acapnia is a deficiency of carbon dioxide that leads in turn to a deficiency of oxygen also." Acapnia was, of course, Henderson's "idée fixe," and on page 10 he states ... "oxygen is an essential food, but not a stimulant. Carbon dioxide, on the contrary, is a tonic and a stimulant" ...

The Italian physiologist A. Mosso had introduced the term "acapnia" as descriptive of a deficiency of carbon dioxide which to him was the cause of mountain sickness. He also described oxygen apnea. On the other hand J.S. Haldane had defined the role of carbon dioxide in the control of breathing. Therefore the scenario was set for Henderson to promote the use of mixtures of oxygen and 5% carbon dioxide as the proper treatment for asphyxia, postoperative; "depression," atelectasis, "hypotonia" of spinal anaesthesia, resuscitation of the new-born, indeed for a whole set of physiological disturbances (2 Passim). In the 1930s and 1940s practically all operating rooms and many delivery rooms were equipped with cylinders containing a mixture of these two gases, in the usual proportion, to treat every conceivable type of problem arising during anaesthesia or in the postoperative period. "Carbogen," as the mixture was called, became a panacea until put to rest like nikethamide and other "stimulants."

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#### REFERENCES

- 1 Knill, RL. Practical CO<sub>2</sub> monitoring in anaesthesia. Can J Anaesth 1993; 40: R40-R44.