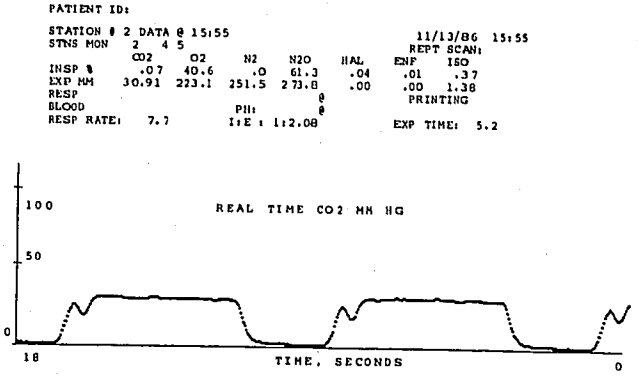

FIG. 1. Mass spectrometer printout showing expired N_2O and abnormal cleft in capnogram.

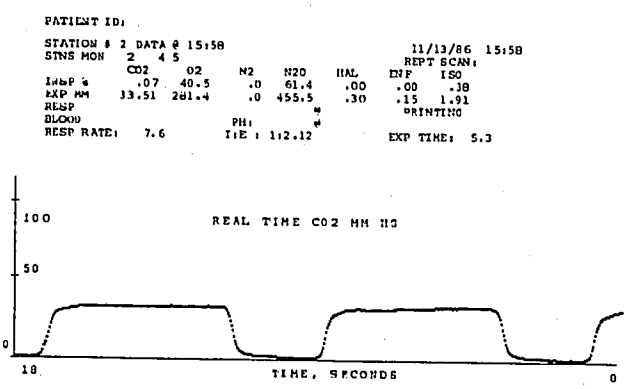

FIG. 2. Mass spectrometer printout after replacement of damaged capillary sampling tubing.

was confusing. Nonetheless, all circuit connections were checked without any effect on the mass spectrometer findings. Finally, the sampling capillary tubing was replaced with prompt elimination of the measured expired nitrogen (fig. 2). Upon further inspection, a small crack was noted near the luer locking patient end connector.

Apparently, during the positive pressure inspiratory phase of mechanical ventilation, the flow at the gas sampling site was great enough that no ambient air was entrained, but, during the passive expiratory phase, air was indeed entrained and diluted the other gases being analyzed by the mass spectrometer. The cleft seen in the capnogram was probably also related to these flow relationships.

In considering these findings, we would caution practitioners to contemplate the possibility of a damaged sampling system when facing the presence of a confusing mass spectrometry finding. We would also suggest that a flexible sleeve protecting the capillary tubing near the luer connector be considered by the manufacturer.

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Anesthesiology
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A Note of Caution when Using Different Cuffs with the Dinamap™

To the Editor:—In the May issue of ANESTHESIOLOGY, Drs. Yamashita, Motokawa, and Tsuneto[1] describe an adaptor for attaching a DURA-CUF™ blood pressure cuff to the DINAMAP™ Monitor Model 1846 8-foot hose designed specifically for use with a neonatal DISPOSA-CUF™. Although it appears to be a convenient alternative to switching hoses between patients of varying sizes, a number of issues surrounding the design and function of DINAMAP™ Monitors should be considered.

DINAMAP™ Monitor Models 1846, 1846SX, and 8100 employ a method known as "cuff typing" for determining whether the attached cuff is in the neonatal or adult/pediatric range. It is achieved through the pneumatic system of the DINAMAP™ Monitor, and the key determinant is the length of the hose attached to the device. Based on this information, the DINAMAP™ Monitor operates under one of two sets of standards; one for adult/pediatric patients, and the other for neonatal patients. The DINAMAP™ monitor will automatically switch into the proper mode when the correct length air hose is attached to it. An operator attempting to monitor an adult/pediatric patient whose blood pressure cuff is attached to a neonatal air hose

through the assistance of the subject adaptor, will mislead the DINAMAP™ Monitor into thinking that it is monitoring a patient much smaller than is actually the case.

Since preset default alarm limits, as well as pump-up pressure and internal algorithms, are altered between the neonatal and adult/pediatric modes, it is incorrect to assume that a DINAMAP™ Monitor will function accurately under these circumstances. Therefore, Critikon, Inc., does not support the use of the adaptor described in this article.

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Anesthesiology
67:608, 1987

Another Use for the Fiberoptic Bronchoscope

To the Editor:—The fiberoptic bronchoscope is a notable advance in the management of difficult intubations. On occasion, because of anatomic derangement or excessive blood and secretions, the glottic inlet cannot be visualized. I have found that the fiberoptic scope can be used as a light-wand stylet to intubate the trachea on these occasions. When the room lights are dimmed, the scope can be advanced blindly while the course of the light is followed. When the bronchoscope enters the trachea, there is a characteristic brightening of the light as is seen with use of the light-wand stylet manufactured for this purpose.[1] The extremely bright light of the bronchoscope makes it visible in some situations where use of the light-wand stylet is difficult (dark complexion, scarred neck). The bronchoscope also allows for manipulation of the tip, which is not possible with the rigid stylet.

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(Accepted for publication June 25, 1987.)

Anesthesiology
67:608–609, 1987

PEEP Antidiuresis: An Alternative Hypothesis

To the Editor:—Recently, Payen *et al.* reported that ADH was not involved in the well-known antidiuretic effect of PEEP.[1] Among the several mechanisms discussed in his excellent paper which could account for this antidiuretic effect, atrial natriuretic factor (ANF) was not mentioned.

It is conceivable that ANF could participate in the antidiuretic effect of PEEP. In fact, the increase of intrathoracic extracardiac pressure secondary to the application of PEEP tends to decrease the transmural pressures in the cavities of the heart, resulting in a reduction of cardiac size. At the atrial level, such reduction of size should result in a decrease of ANF secretion, due to the diminished activity of the atrial stretch receptors. Such decrease of ANF would, in turn, result in antidiuresis.

The authors controlled the circulating blood volume as constant. However, they reported an increase in vena caval pressure, which suggests that there was redistribution of blood volume; it is likely, therefore, that the cardiac volume was indeed reduced, in spite of constant total blood volume. It would be of interest to measure the plasma concentration of ANF in patients before and after the application of PEEP; conversely, it would be interesting to observe if the antidiuretic response to PEEP could be prevented by maintaining constant the