CORRESPONDENCE

Anesthesiology
79:1449, 1993

Gender Bias Influences Interpretation of Research Results

To the Editor:—I applaud the work of Bailey *et al.*,[1] which methodically analyzed the respiratory effects of graded doses of intrathecal morphine in normal, nonsurgical subjects. My only criticism with this elegant work is that the title should have reflected the fact that this study group consisted of 20 healthy *male* volunteers.

It is now well known that females, with their variable levels of circulating progestins, have differing responses to ventilatory challenges. Premenopausal females demonstrate cyclical patterns of ventilatory drive that mirror their own levels of circulating progesterone.[2] In addition, women or men who receive exogenously supplied progesterone also display an interesting ventilatory increase.[3,4] Finally, all anesthesiologists are well aware of the decrease in Pa_{CO_2} that accompanies pregnancy.

Many anesthesia practices have a large percentage of females who might benefit from intrathecal morphine. However, one should not generalize from the study population in this article to this female group. Only after further careful scientific study, can we be confident that the recommendations offered by these authors are applicable to all members of the population.

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Disposable Circuit Disconnects

To the Editor:—We report two cases of partial circuit disconnection using expandable anesthesia breathing circuits that have "slip fit connections" (Intertech, Lincolnshire, IL; fig. 1). On both occasions, after successful anesthesia checkout procedures (pressurization of the circuit and circle system), the tubing was expanded by hand to achieve the necessary length. In no case was the expansion of the circuit excessive. Expansion of the circuit was completed by pulling the patient adaptor and the corrugated tubing nearest this portion of the adapter. In both cases, separation occurred at this junction, referred to as the "slip fit connection" (fig. 2). The manufacturer has placed these adapters at this site to allow for rotation of the tubing to prevent the formation of kinks. In addition, this adapter was designed to be easily snapped off and snapped back in place should the clinician wish to remove this portion of the circuit.

The package insert does not mention the possibility that this disconnection might occur. Furthermore, we cannot identify any product designed that might be placed at this site (*i.e.*, it is not a standard 22-mm coaxial fitting site ASTM Specification F 1054*). Also, the manufacturer gives no instructions as to how to expand the tubing. Expansion at the junction of patient adapter and the corrugated tubing may cause this connector to partially disconnect, and thus the recommendation might be made to expand the circuit at the tubing sections only and then recheck the integrity of the circuit.

* Annual Book of ASTM Standards: Standard Specification for Anesthesia Breathing Tubes. Volume 13.01,535.

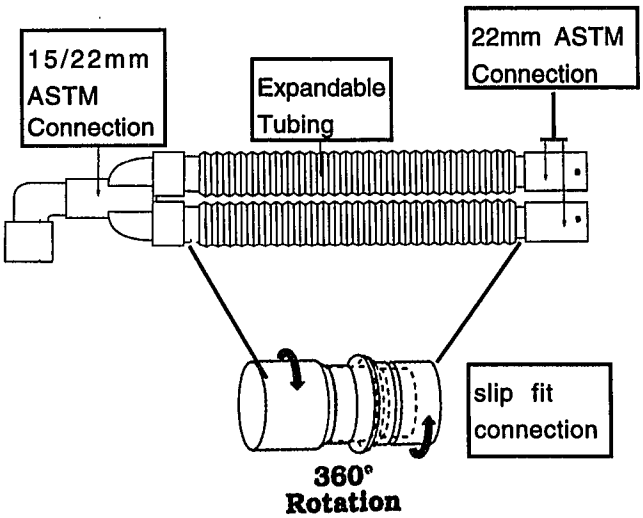

Fig. 1. Location of the "slip fit connectors" showing the site of possible disconnection at the corrugated tubing. This connector also demonstrates its ability to rotate, allowing prevention of possible kinking.

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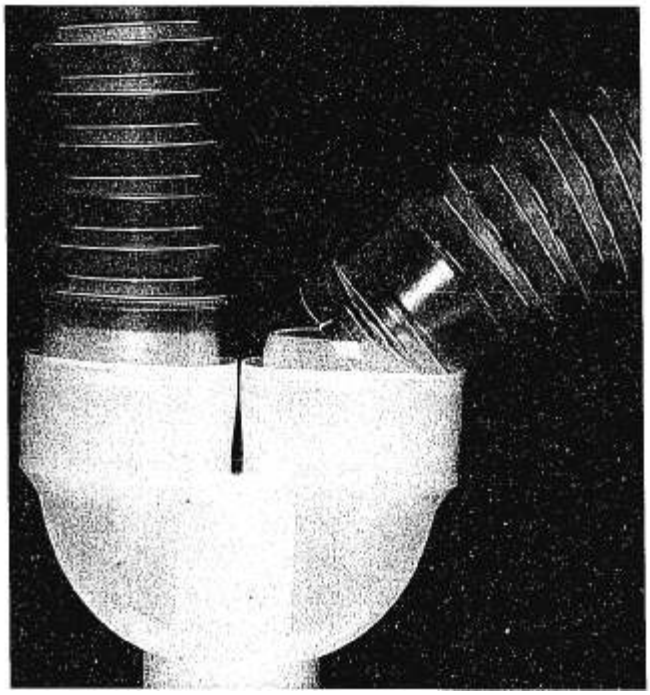

Fig. 2. The partial disconnection that occurred at the "slip fit connection."

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In Reply:—Slip fit connections are and have been a standard feature on all Intertech breathing circuits for more than 10 yr, and the adult expandable circuit described by Feinglass and Dorsch has been available since January 1993. The slip fit connection not only helps prevent tubing twists and kinks but also allows addition of our proprietary temperature port adapter or heated wire inspiratory limb. During the period mentioned above, we have sold millions of circuits and hundreds of thousands of the expandable circuits in question. Intertech has not had one reported case of slip fit connection inadvertent disconnect in routine clinical use.

Intertech has had the opportunity to evaluate the two subject circuits. Our tests found both circuits to exceed the ASTM standard 10-pound pull force. Although we do not doubt this incident occurred, we believe the rate or force used to expand the tubing must have exceeded normal levels.

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