

CORRESPONDENCE

Anesthesiology
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Caution When Suctioning Through the Endotracheal Tube of a Neonate

To the Editor:—We noted with concern the report of Finucane *et al.*¹ of two cases of “disappearing” neonatal endotracheal tubes (ETT) due to removal of the 15-mm adapter. What the authors recommend to prevent this problem is that the equivalent of a suction catheter be placed through the ETT. We, and the American Academy of Pediatrics, believe this to be inappropriate. In the Textbook of Neonatal Resuscitation, a programmed course for instruction produced jointly by the American Heart Association and the American Academy of Pediatrics, the manual states, “Note: When suctioning meconium, *do not* attempt to pass a suction catheter *through* an endotracheal tube. You cannot pass a catheter that is large enough to adequately suction the meconium” (original italics; pp 5–74, 1987).

There are devices available that connect directly to the 15-mm adapter at one end and wall suction tubing at the other end with a side thumb hole. We use the smaller type pictured in figure 1 (Neotech Products, Inc., Chatsworth, CA). The other device in the figure has a screw-on 20-ml trap (Gesco International, Inc., San Antonio, TX). Both allow use of the largest possible diameter tube to evacuate a potentially large volume of tenacious material. Suction pressure should not exceed 100 mmHg, and so unregulated wall suction, which may exceed 400 mmHg, should never be employed. We agree that a neonatal ETT should never be used without the 15-mm adapter in place, but further emphasize that meconium is ineffectively removed by placement of a smaller catheter within the ETT.

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In Reply:—In response to the letter from Seguin and Claflin, I must agree that suction catheters are not the ideal way to aspirate tenacious meconium from the respiratory tree of a neonate, but we cannot see any real danger in attempting to do so.

We referred to the textbook of Neonatology mentioned by Seguin and Claflin and despite the overall excellent quality of this text, the instructions about the management of meconium aspiration are quite loose and are without reference. Furthermore, on conferring with a colleague* in Neonatology about this topic, there is no consensus about the optimal management of meconium aspiration.

The purpose of our original letter was to focus attention upon the importance of ensuring that the 15-mm adapter remains attached to the endotracheal tube at all times during intubation attempts, especially in neonates. Our colleagues, Seguin and Claflin, do not take issue with this point.

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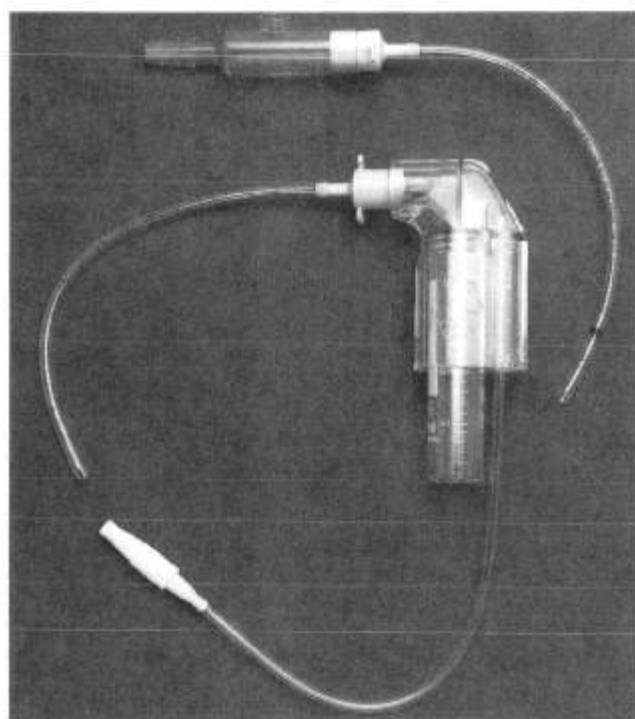


FIG. 1. Meconium aspirators manufactured by Neotech (above) and Gesco for direct attachment to 15-mm endotracheal tube adapters and to standard wall suction tubing.

REFERENCE

1. Finucane BT, Shanley V, Ricketts RR: “Disappearing” Endotracheal Tube Following Meconium Aspiration: A Possible Solution to the Problem. *ANESTHESIOLOGY* 71:469, 1989

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