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The Parker Flex-Tip Tube *versus* a Standard Tube for Fiberoptic Orotracheal Intubation: A Randomized Double-blind Study

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Background:
During fiberoptic tracheal intubation, passage of the fiberscope itself to the trachea is often fairly easy, but passage of the tube into the trachea may be difficult or even impossible. A new type of disposable endotracheal tube, the Parker Flex-Tip tube, has a tip that reduces the gap between the fiberscope and the inside of the tube. Thus, theoretically, a smaller risk of impinging on laryngeal structures during insertion in trachea is expected.

Methods:
Eighty patients scheduled for elective anesthesia using orotracheal intubation were randomized to either a Parker Flex-Tip tube or a standard (Portex) 7.5-mm-ID endotracheal tube. Blinding was obtained by having the tube premounted on the fiberscope (Olympus LF-1; diameter of fiberscope = 4 mm) and thereafter covered with a black opaque plastic bag. Difficulty in placing the tube was scored using an objective standardized grading system.

Results:
Seventy-six patients completed the study. The use of the Parker Flex-Tip tube reduced the incidence of need for repositioning of the tube during insertion into trachea from 89% to 29% ($P < 0.0001$) when compared to the standard tube. The median time for passage of the tube into the trachea was reduced from 20 s to 7.5 s ($P < 0.0001$).

Conclusions:
During oral fiberoptic intubation, the use of the Parker Flex-Tip tube is associated with greater incidence of initial success of passage of the tube into trachea when compared to a standard endotracheal tube.

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