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Undetected Leak in Corrugated Circuit Tubing in Compressed Configuration

To the Editor.—We report an incident involving a disposable anesthesia circuit. The original compressed configuration of the circuit's corrugation showed no sign of a leak during a preoperative positive pressure test. However, after intravenous induction of general anesthesia, the tubing corrugation was extended and a previously undetected flaw in the circuit (fig. 1) became the source of a major leak. Ineffective positive pressure ventilation ensued, leading to a decline in the patient's hemoglobin oxygen saturation ($S_{po_2}$). The circuit was abandoned for an ambu bag until the leak was identified and the circuit replaced. We suggest doing a preoperative positive pressure leak test with this type of circuit in the fully extended configuration to detect potential flaws in the circuit that might otherwise be missed.

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Fig. 1. Corrugated tubing showing defect.