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Risk of Air Embolism during Catheter Placement

To the Editor:—In a recent clinical report, Westheimer¹ reported a technique for right atrial catheter placement with the use of a wire guide. The technique described seems quite simple and successful. Once the J-wire is inside the catheter, and the catheter is advanced to the correct position in the right atrium, the catheter will be open to room air. This poses the danger of air embolism from the open catheter if the patient suddenly takes a deep breath. The proximal end of the catheter will be difficult to occlude due to the presence of J wire. What precautions are taken to prevent air entry during catheter advancement?

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REFERENCE

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In reply:—Dr. Munshi has questioned whether the patient is at risk of air embolism while using a wire guide for intravascular ECG monitoring during right atrial catheter placement. Air embolism has not occurred with our technique for the following reasons: 1) prior to catheter insertion, the patient is anesthetized, his ventilation is controlled, and he is placed in Trendelenburg's position; and 2) the presence of the wire guide in the catheter effectively seals it and prevents leakage of blood out of the catheter or entrainment of air into it.

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