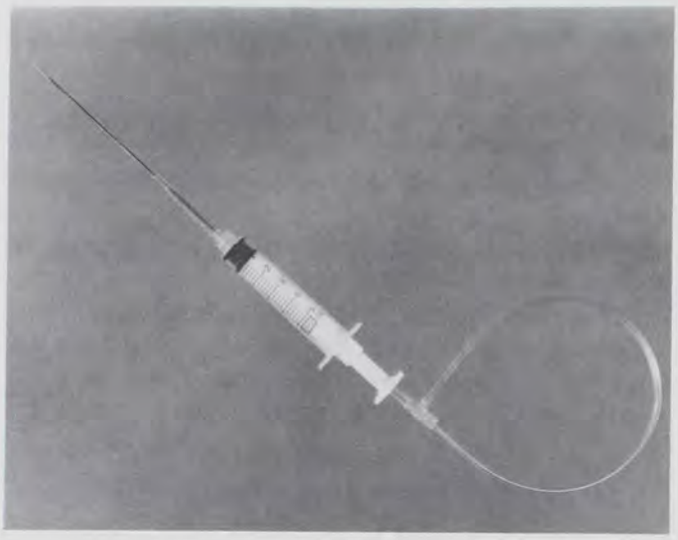

FIG. 1. View of single-unit j-wire insertion device.

Cannulation of the central venous system is accomplished with the standard techniques.[2,3] Once the vein is punctured and blood return established, the j-wire is passed into the vessel without disconnecting the needle from the syringe.

This system offers the possible advantages of reducing the risk of air embolism and improving sterile technique.[4] More importantly, it will reduce the probability of displacing the needle from the vein when disconnecting the syringe from the needle.

This device has been used on 20 patients requiring internal and external jugular cannulation. In our experience, we have not failed to pass the wire once blood return was established. It has proved especially helpful for training inexperienced personnel and for cannulating difficult external jugular vessels.

WILLIAM P. ELLERMEYER, M.D.
Instructor of Anesthesiology

PATRICK KEIFER, M.D.
Resident, Department of Surgery

Creighton University School of Medicine
601 North 30th Street
Omaha, Nebraska 68131

REFERENCES

1. Seldinger SI: Catheter replacement of the needle in percutaneous arteriography. Acta Radiol 39:368–373, 1953
2. Mostert JW, Kenny GM, Murphy GP: Safe placement of central venous catheter into IJ veins. Arch Surg 101:432, 1970
3. Blitt CD, Wright WA, Petty CP: Central venous catheterization *via* the extrajugular vein: A technique employing the j-wire. JAMA 229:817–818, 1974
4. McGoon MD, Benedetto PW, Greene BM: Complications of percutaneous central venous catheterization: A report of two cases and review of the literature. Johns Hopkins Med J 145:1–6, 1979

(Accepted for publication May 15, 1986.)

Anesthesiology
65:342, 1986

A New Use for the Pulse Oximeter

To the Editor:—We would like to report the use of the pulse oximeter to aid cannulation of the femoral artery. A 5-yr-old black male with Down's syndrome and obesity (40 kg) came to the operating room for complete repair of tetralogy of Fallot. After an inhalation induction, bilateral antecubital ivs were started and anesthesia was maintained without difficulty. Acceptable oxygen saturations and stable blood pressures were measured by pulse oximeter (Nellcor® N-100) and the Dinamap™ SX. Attempts to cannulate both radial arteries were unsuccessful because pulses could not be palpated due to excessive adipose tissue. Femoral pulses could not be palpated for the same reason. The right groin was then prepped and draped using sterile technique. The pulse oximeter sensor was placed on the right great toe, and good pulsations were obtained. The groin was then manually probed and a specific area identified where digital occlusion caused the cessation of the distal toe pulsation on the pulse oximeter. A 20-gauge intravenous catheter was inserted into the identified area and the femoral artery cannulated without difficulty. An appropriate femoral artery catheter was then inserted using a modified Seldinger technique.

In conclusion, we found this technique was helpful, and it illustrated an additional use for the pulse oximeter. It is easy to use and may aid in similar cases where palpation of the arterial pulse is not possible.

ROBERT P. S. INTRONA, M.D.
Assistant Professor

PAUL I. SILVERSTEIN, D.O.
Assistant Professor

Department of Anesthesiology
Medical College of Georgia
Augusta, Georgia 30912

(Accepted for publication May 19, 1986.)