

ventricular tachycardia can occur in anesthetized patients. As is often the case, exact clinical causes of the dysrhythmias are not clear. In Case 1, there were several possible triggering factors: 1) alterations in myocardial autonomic control secondary to spinal anesthesia; 2) changes in intravascular fluid volume secondary to delivery of the infant; 3) effects of oxytocin on the cardiovascular system. In the patients who received general anesthesia, reflex initiation of the dysrhythmia during light anesthesia in Cases 2 and 3, and direct myocardial damage in Case 4, may have contributed significantly to the precipitation of the dysrhythmia.

Although most dysrhythmias during anesthesia will respond either to a change in anesthetic technique or to cessation of surgical manipulation, the cases presented here emphasize the fact that paroxysmal supraventricular tachycardias during anesthesia may produce deleterious cardiovascular

effects that necessitate more rapid restoration of normal rhythm than can be achieved by modifying anesthetic or surgical management. In such situations, the rational use of specific antidysrhythmic therapies is imperative.

#### REFERENCES

1. Ticzon AR, Whalen RW: Refractory supraventricular tachycardias. *Circulation* 47:642-653, 1973
2. Sinno MZ, Gunnar RM: Hemodynamic consequences of cardiac dysrhythmias. *Med Clin North Am* 60:69-80, 1976
3. Bellet S: *Essentials of cardiac arrhythmias: Diagnosis and management*. Philadelphia, W. B. Saunders, 1972, pp 102-110
4. Gettes LS, Yoshonis KF: Rapidly recurring supraventricular tachycardia. A manifestation of reciprocating tachycardia and an indication for propranolol therapy. *Circulation* 41:689-700, 1970
5. Warner H: Therapy of common arrhythmias. *Med Clin North Am* 58:995-1017, 1974

## Correspondence

Anesthesiology  
46: 77, 1977

### Percutaneous Aortic Catheterization—A Hazard of Supraclavicular Internal-jugular-vein Catheterization

*To the Editor:*—Unpredictability of peripherally introduced central venous monitoring lines in pediatric patients has led to renewed interest in internal-jugular-vein catheterization. We have employed the supraclavicular approach to the internal jugular vein\* to establish guidelines for its use in our patients undergoing operations for congenital heart disease. A new contraindication to this technique has been established.

A Mustard<sup>1</sup> total correction of transposition of the great arteries was performed on a 14-month-old 7.2-kg male infant. Supraclavicular internal-jugular-vein catheterization was attempted after induction of anesthesia and endotracheal intubation. A 20-gauge 1¼-inch Angiocath<sup>†</sup> was introduced once. Upon stylet removal, pulsatile blood flow was apparent. With heparinization for cardiopulmonary bypass anticipated, the catheter was held in place and monitored by oscilloscope. Shortly thereafter, the arterial trace dampened and blood withdrawal became impossible. After other monitoring was established, the operation was begun. Through a

median sternotomy the heart and great vessels were exposed. Dissection revealed a single puncture site with surrounding hematoma formation in the anterior wall of the ascending aorta. The catheter tip, though in close proximity to the puncture, was not in the aorta. Active bleeding from the puncture was not seen.

In complete transposition of the great arteries, the aorta, arising from the right ventricle, is anterior and oriented toward the right thoracic cavity.<sup>2</sup> This anatomic configuration contraindicates right supraclavicular internal jugular vein catheterization in these patients.

ALAN JAY SCHWARTZ, M.D.  
*Instructor*  
*Department of Anesthesia*  
*University of Pennsylvania*  
*Philadelphia, Pennsylvania 19104*  
*and*  
*Children's Hospital of Philadelphia*

#### REFERENCES

1. Mustard WT: Successful two-stage correction of transposition of the great vessels. *Surgery* 55:469-472, 1964
2. Hurst JW (editor): *The Heart: Arteries and Veins*. New York, McGraw-Hill, 1974, p 726

(Accepted for publication August 25, 1976.)

\* Rao TLK, Wong AY, Salem MR: A new approach to percutaneous internal jugular vein catheterization. *Abstracts of Scientific Papers, Annual Meeting of the American Society of Anesthesiologists*, 1975 pp 25-26.

† Deseret Pharmaceutical Co., Inc., Sandy, Utah 84070.