of the three patients with the greatest decreases in mean arterial pressure (from 26 to 32 mm Hg) aortic stenosis was the predominant lesion. The diastolic pressures after Innovar in these three ranged from 42 to 64 mm Hg, and 42 mm Hg was the lowest diastolic pressure found in the study. Low diastolic pressures should be considered hazardous to adequate coronary perfusion, particularly in patients with aortic stenosis and associated myocardial hypertrophy who have abnormally great oxygen requirements.

The peripheral dilatation seen with Innovar may have a positive effect. The four patients with the greatest peripheral resistance values prior to the administration of Innovar (Patients 5, 9, 15, and 18), all of whom had peripheral resistance values of 50 units or more, had mitral-valve lesions. Diastolic pressures decreased modestly, but not to the levels seen in patients with aortic stenosis, while the cardiac indices either improved or remained the same. This observation may support the use of adrenergic blocking agents such as phenoxybenzamine [12] for patients who have certain cardiac conditions and high peripheral vascular resistances during and after cardiac surgery.

References

1. Corssen G, Chodoff P, Domino EF, *et al.*: Neurolept analgesia and anesthesia for open-heart surgery: Pharmacologic rationale and clinical experience. J Thorac Cardiovasc Surg 49:901–920, 1965
2. Fox JWC, Fox EJ, Crandell DL: Neuroleptanalgesia for heart and major surgery. Arch Surg (Chicago) 94:102–106, 1967
3. Catton DV, Browne RA: Premedication with fentanyl and droperidol. Canad Anaesth Soc J 16:72–76, 1969
4. Zauder HL, Del Guercio LRM, Feins N, *et al.*: Hemodynamics during neurolept analgesia (abstract). ANESTHESIOLOGY 26:266, 1965
5. Prys-Roberts C, Kelman GR: The influence of drugs used in neuroleptanalgesia on cardiovascular and ventilatory function. Brit J Anaesth 39:134–145, 1967
6. Moore JW, Kinsman JM, Hamilton WF, *et al.*: Studies on the circulation. II. Cardiac output determinations; comparison of the injection method with the direct Fick procedure. Amer J Physiol 89:331–339, 1929
7. Cardocki JF, Yelnosky J: A study of some of the pharmacologic actions of fentanyl citrate. Toxic Appl Pharmacol 6:48–62, 1964
8. Yelnosky J, Katz R, Dietrich EV: A study of some of the pharmacologic actions of droperidol. Toxic Appl Pharmacol 6:37–47, 1964
9. Siegel JH: The myocardial contractile state and its role in the response to anesthesia and surgery. ANESTHESIOLOGY 30:519–564, 1969
10. Gregg DE, Fisher LC: Section 2, Circulation, Handbook of Physiology. Edited by WF Hamilton and P Dow. Washington, D. C., American Physiological Society, 1963, vol 2, pp 1517–1584
11. Price HL: Effects of carbon dioxide on the cardiovascular system. ANESTHESIOLOGY 21: 652–663, 1960
12. Lillehei RC, Lillehei CW, Grismer JT, *et al.*: Plasma catecholamines in open-heart surgery: Prevention of their pernicious effects by pretreatment with dibenzyline. Surg Forum 14:269–271, 1963

Pediatrics

CARDIAC CATHETERIZATION Cardiac catheterization was performed in 45 children 2 to 6 years of age using a combination of basal sedation and axillary plexus block. Basal sedation was accomplished with droperidol, 0.3 to 0.6 mg/kg, and Omnopon, 0.7 mg/kg, administered 90 minutes prior to the axillary block. The block was accomplished using 1.25 to 1.5 mg/kg of bupivacaine (0.25 containing 1/400,000 epinephrine). A sleep dose of thiopental was given to the occasional patient who was still awake and restless at the start of catheterization. No patient required further sedation for the procedure, which often included selective angiocardiography. The technique provided an immobile arm with pronounced vasodilation which permitted the use of larger catheters, made blood sampling easier and provided undamped pressure records. The absence of ventilatory depression was confirmed by oxygen saturation values within the normal range in those patients who did not have cyanotic heart disease or right-to-left shunts. (*Ross, D. M., and Williams, D. O.: Combined Axillary Plexus Block and Basal Sedation for Cardiac Catheterization in Young Children, Brit. Heart J. 32: 195 (March) 1970.*)