

using a thermal conductivity detector, yielded coefficients of variation of 3.5 per cent in  $N_2O$  and 2.1 per cent in  $O_2$ . (Oyama, T., Matsumoto, F., and Kamada, M.: *Quantitative Determination of Anesthesia Agents: Ether, Nitrous Oxide, Carbon Dioxide and Oxygen in Alveolar Air and Blood, Jap. J. Anesth.* 18: 109 (Feb.) 1969.)

**INTRABILIARY PRESSURE** Neuroleptanalgesia causes an increase in the tonus of the sphincter of Oddi. It is safe for use in patients with hepatic disease but should be avoided in patients undergoing surgical operations involving the biliary system. (Uray, E., and Kosa, S.: *Effect of Neuroleptanalgesia on Biliary Pressure, Der Anaesthetist* 18: 74 (March) 1969.)

**INTRAOCULAR PRESSURE** Intraocular pressure was found to be decreased in 30 patients undergoing ophthalmic surgery with neuroleptanalgesia. Therefore, neuroleptanalgesia is recommended for ophthalmic surgical operations, particularly for patients with increased intraocular pressure. (Sarmany, B. J.: *Further Investigations of the Effect of Anesthetics on Intraocular Pressure with Special Reference to Neuroleptanalgesia, Der Anaesthetist* 18: 72 (March) 1969.)

**DIGITALIS** There was no consistent relationship between the inotropic and the dromotropic (A-V blocking) effects of the digitalis glycoside acetylstryphanthidin (A-S) in dogs. Myocardial contractile force (CF) was measured with a right ventricular strain gauge. A-V blocking ability was assessed by determining the ventricular rate during artificial atrial pacing. Autonomic influences profoundly affected both inotropic and dromotropic actions of digitalis. Contrary to prevailing opinion, parasympathetic blockade with atropine did not alter the A-V blockade induced by digitalis. The beta-stimulation-induced increase in ventricular rate produced by isoproterenol was attenuated by digitalis. At low doses isoproterenol and digitalis increased CF in an additive manner. Digitalis did not further increase CF after large doses of isoproterenol, but isoproterenol increased the CF irrespective of the dose of digitalis, indicating that isoproterenol had a much more potent inotropic action. Beta blockade with MJ-1999 (Sotolol), a drug with few quinidine-like properties, did not alter the positive inotropic effect of digitalis. MJ-1999 elicited profound bradycardia (decrease in V-R), which was unaffected by subsequent administration of digitalis. There are several clinical implications to this study. If beta stimulation were high initially but then diminished during digitalization, there would be little change in CF but a marked increase in A-V blockade. Conversely, if the initial beta activity was low but increased during digitalization, there would be a marked increase in CF with little change in A-V conduction. (Ogden, P. L., and others: *The Relationship Between the Inotropic and Dromotropic Effects of Digitalis: The Modulation of these Effects by Autonomic Influences, Amer. Heart J.* 77: 479 (May) 1969.)

**BLOOD LEVELS OF PENTAZOCINE** A spectrophotofluorometric method for the quantitative determination of pentazocine levels in human plasma is described. Following intramuscular and oral administration, plasma levels of pentazocine coincided closely with onset, duration, and intensity of analgesia, as well as with other pharmacologic effects. The mean peak plasma level after 45 mg/70 kg intramuscularly was 0.14  $\mu\text{g/ml}$ . The mean peak plasma level after 75 mg orally was 0.16  $\mu\text{g/ml}$ , but as much as 25 per cent represented products of biotransformation. The plasma half-life is about two hours after intravenous or intramuscular ad-