

MYOCARDIAL INFARCTION Essential surgery performed during the early postinfarction period carries a very high risk. The prognosis following surgery performed after the first 15 days postinfarction is significantly improved. These findings support the concept that elective surgery should be postponed until the end of the healing stage (three months). The reported mortality in surgical patients with a transmural infarction is 77 per cent and only 7 per cent in patients with a subendocardial infarction. Classification of acute myocardial infarctions into three groups: anterior, lateral and posterior or inferior infarctions helps assess the prognosis for surgery. Anterior infarction results from occlusion of the anterior descending branch of the left coronary artery. As this artery never supplies either the sinoatrial (SA) or the atrioventricular (AV) node, heart block is uncommon with anterior infarction. Lateral infarction results from occlusion of the left circumflex coronary artery. If the left circumflex artery supplies the SA node or the AV node, serious arrhythmias or heart block may develop. Posterior infarction results from occlusion of the right coronary artery. It has a limited distribution and such infarcts are small. As this artery often supplies both the SA node and the AV node, these patients are more likely to have disturbances of rate and rhythm. In such patients, drugs that depress AV conduction, such as digitalis and quinidine, and general anesthesia, must be administered with caution. Under anesthesia, patients who have a degree of AV block may go on to an Adams-Stokes attack without warning. Hyperkalemia, hypercapnia, hypoxemia, or reflex vagal stimulation can precipitate these attacks. Preoperative atropinization, approaching full vagal blockade (1 mg.), is indicated in this instance. (Fraser, J. G., and others: *Anesthesia and Recent Myocardial Infarction*, J.A.M.A. 199: 318 (Jan.) 1967.)

BLOOD FLOW Mice with tumors were allowed to breath air, oxygen, or 95 per cent oxygen and 5 per cent carbon dioxide at 1 and 3 atmospheres. Blood flow was determined by the thermal circulation index, and tissue oxygenation was measured polarographically. Pure oxygen at 1 atmosphere had no

significant effect on blood flow within the tumor or in normal skin, but inhalation at 3 atmospheres decreased flow in both tissues. The addition of 5 per cent carbon dioxide to the oxygen increased flow at both pressures. Oxygenation was often improved in anoxic areas within the tumor on breathing 100 per cent oxygen at 1 atmosphere and in almost all animals at 3 atmospheres; the addition of 5 per cent carbon dioxide at either pressure usually further improved the oxygenation, but sometimes had the opposite effect at 3 atmospheres. (Kruuv, J., Inch, W. R., and McCredie, J. A.: *Effects of Breathing Gases Containing Oxygen and Carbon Dioxide at 1 and 3 Atmospheres Pressure on Blood Flow and Oxygenation of Tumors*, *Canad. J. Physiol. Pharmacol.* 45: 49 (Jan.) 1967.)

VESSEL OPENING PRESSURE Effect of local temperature on the *in vivo* reactivity of vascular smooth muscle was measured as the increase in critical opening pressure (COP) of digital vessels caused by intravenous infusion of 5 $\mu\text{g./minute}$ of noradrenalin. With one hand cool (22° C.) and the other warm (34°) in test experiments or both hands either cool or warm in control measurements, simultaneous measurements were made of the increase in COP of vessels in both middle fingers in response to noradrenalin. In control experiments the mean increase in COP after noradrenalin was similar in right and left fingers, but in test experiments the mean increase was greater in the warm finger than in the cool one. Warm vessels were more reactive to noradrenalin than cool ones. (Gaskell, P., and Hoepfner, D. L.: *Effect of Local Temperature on the Reactivity to Noradrenalin of Digital Vessels*, *Canad. J. Physiol. Pharmacol.* 45: 930 (Jan.) 1967.)

BLOOD FLOW Fifteen experiments were performed on 13 subjects to determine the effect of local cold on sensitivity of vascular smooth muscle to noradrenalin. Rate of blood flow in the feet was measured by venous occlusion plethysmography. The plethysmographs were filled with water at 21° C. for the left foot and 34° C. for the right. Noradrenalin in doses of 0.1, to 6.4 $\mu\text{g./minute}$ were infused intravenously for periods of 5 to