

Literature Briefs

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Briefs were submitted by Drs. C. M. Balinger, N. A. Bergman, R. B. Boettner, R. B. Clark, J. Jacoby, W. M. Mannheimer, D. H. Morrow, R. C. Morton, A. S. Paterson, J. W. Pender, R. E. Ponath, L. J. Saidman, P. Sechzer, and A. D. Sessler. Briefs appearing elsewhere in this issue are part of this column.

Circulation

SHOCK Hemorrhagic, endotoxin, and cardiogenic shock in dog and man is associated with a marked reduction in tissue perfusion due to increased vasoconstriction. This vasoconstriction is most severe in the skin and splanchnic beds and lungs, allowing preferential perfusion of vital organs such as the heart and brain. Maintenance of this vasoconstrictive response by the use of vasopressors does not improve survival; blockage by tolerance to repeated sympathetic stimulation or reduction of the response with vasodilators in combination with adequate volume replacement increases survival significantly. (Dietzman, R. H., and others: *Mechanisms in the Production of Shock, Surgery* 62: 645 (Oct.) 1967.)

METHOXAMINE In the dog only a part of the increase in refractory period and conduction time of atrioventricular transmission following methoxamine is due to the direct effect of the drug, the rest being secondary to the pressor response to the drug. The direct effect is seen when bleeding prevents the pressor response, and is approximately one-half that observed when the blood pressure is allowed to rise. (Greenberg, R., and Dresel, P. E.: *Role of Blood Pressure in the Effect of Methoxamine on Cardiac Conduction, Canad. J. Physiol. Pharmacol.* 45: 919 (Sept.) 1967.)

CARDIAC ARRHYTHMIAS Continuous electrocardiographic recordings were made during surgical operations on 154 consecutive patients. The appearance of cardiac arrhythmias during operation was correlated with the type and length of surgical procedure, anesthetic agent, and technique, utilizing an automated data-recording and reduction system. The incidence of significant arrhythmias was 61.7 per cent. These included wandering pacemakers, isorhythmic A-V dissociation, nodal rhythm and premature ventricular systoles. The appearance of these abnormal rhythms was related to the types of anesthetic, intubation, hyperventilation and duration of surgery. It was of interest that the incidence of arrhythmias in patients with pre-existing cardiac disease was nearly identical to the incidence in normal patients. (Kuner, J., and others: *Cardiac Arrhythmias during Anesthesia, Dis. Chest* 52: 580 (Nov.) 1967.)

LIDOCAINE FOR ARRHYTHMIAS Lidocaine has become one of the most frequently used drugs in the treatment of ventricular arrhythmias. The efficacy of this drug in the treatment and prevention of ventricular arrhythmias secondary to coronary heart disease was determined in 29 patients. An intravenous bolus of lidocaine, 1 to 2 mg./kg. body weight, was shown to be effective therapy for ventricular tachycardia or multiple premature ventricular beats. Furthermore, the incidence of recurrent premature beats could be prevented or reduced by a constant intravenous infusion of lidocaine, 20 to 50 μ g./kg./minute. Hypotension, CNS depression and convulsions appeared to be avoidable if the dose was kept below 55 μ g./kg./minute. The necessity for systemic arterial pressure monitoring during lidocaine administration and the fact that the