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Drugs

VASOACTIVE DRUGS Xenon-133 was incorporated with different drugs in saline solution and injected into the myocardium of the dog. From rate of fall of radioactivity at the injection site, ratio of flow per volume of tissue was derived. Ratios were consistently reduced by angiotensin, pitressin and propranolol, and were increased by dipyridamole, nitroglycerine, isoproterenol, epinephrine and norepinephrine, indicating that these agents have an effect on small coronary vessels. Ratios were unaltered by phenylephrine and by combinations of propranolol with epinephrine or norepinephrine, suggesting that alpha-receptor sites may be absent from the small vessels studied. (Torres, E. C., and Brandi, G.: *Effect of Vasoactive Drugs on Local Coronary Flow*, *Canad. J. Physiol. Pharmacol.* 47: 421 (May) 1969.)

PREMARIN The value of conjugated estrogenic substances such as premarin in establishing hemostasis in patients undergoing surgical operations on the heart with and without cardiopulmonary bypass was evaluated. Premarin increased the concentration of prothrombin and the activity of factors V and VI and decreased anti-thrombin concentration, provided these values were abnormal at the time of drug administration. A hypoprothrombinemia of 50 per cent could be corrected in most cases. Extracorporeal circulation may decrease the thrombocyte count by as much as 50 per cent and, more importantly, activate plasminogen and the formation of plasmin, resulting in a fibrinolysis proportional to the duration of trauma to the blood during cardiopulmonary bypass. Premarin prevented these changes. In 100 patients undergoing surgical operations on the heart (50 with and 50 without extracorporeal circulation) premarin was given in doses of 20 mg intravenously, 12 hours preoperatively, during induction of anesthesia, after termination of pump perfusion, and three more times within the first 12 hours postoperatively. One hundred patients undergoing the same type of operation did not receive the drug and served as controls. Premarin has a significant antifibrinolytic effect. Compared with the control group, the postoperative blood loss was decreased by 33 per cent in the open-heart-surgery group and by 20 per cent in the patients undergoing closed-heart surgical operations. No undesirable side-effects of drug therapy were noted. (Kraft-Kinz, J., and others: *Problems of Hemostasis in Heart Surgery*, *Thoraxchirurgie* 17: 157 (April) 1969.)