red blood count. . . Because cyclopropane is depressing to the respiratory system, respiration should not be depressed during the preoperative period. The incidence of cardiac irregularities during anaesthesia may be minimized if proper preliminary medication is employed. . . We prefer the administration of atropine to scopolamine because this agent satisfactorily depresses secretions in the respiratory tract and because we prefer administration of a barbiturate rather than scopolamine for the production of sedation. . . According to Adriani, atropine offers an advantage in that the involuntary muscles of the bronchi and bronchioles are relaxed. . . Novatropine, a newer drug, has been recommended by Martin and Batterman in place of atropine for preliminary medication. It has the advantages of ordinary atropine and, in addition, it reduces markedly the tone and motility of the gastro-intestinal tract, during cyclopropane anaesthesia. . . Guedel has recommended the intravenous administration of a relatively large dose (0.6 to 1.0 gram) of a barbiturate (evipal soluble) prior to induction of cyclopropane anaesthesia. . . With this method he claims a marked reduction in the incidence of cardiac irregularities, which occur if administration of the barbiturate is omitted. We frequently administer pentothal sodium intravenously while the patient is in his room. He is transferred to the operating room while under the effect of a dose sufficient for induction of anaesthesia . . . "The signs of anaesthesia with cyclopropane are not as well defined as with other agents because of the rapid action of the gas . . . Cyclopropane is best given by the closed circuit method because the gas is expensive and is explosive when mixed with oxygen. . . We have used Waters’ method of administration with a few variations. . . The use of the cautery, open flame, diathermy or x-ray equipment during the administration of cyclopropane cannot be too strongly condemned. . . Cyclopropane and oxygen may be used with other inhalation agents and it may be used in combination with other methods of anaesthesia. . . Complications during and following cyclopropane anaesthesia are minimal, and their incidence is not increased over that observed with other inhalation agents. . . We fully agree with the statement made in 1939 by the Council on Pharmacy and Chemistry of the American Medical Association that 'cyclopropane is a suitable anaesthetic agent when used cautiously by those fully informed of its properties, potential dangers and signs which indicate the stages of anaesthesia obtained with this agent.' All the safeguards recommended by the National Fire Protection Association should be maintained throughout the administration of this agent."

J. C. M. C.


"Various authors have suggested that a relationship may exist between the function of the adrenal cortex and the occurrence of shock. The use of material derived from the adrenal cortex for the treatment or prevention of surgical shock has also been advocated. Perla and his associates administered desoxycorticosterone acetate and solution of sodium chloride preoperatively to patients about to undergo major surgical operations. In twelve cases in which the patients were treated in this manner these authors reported an absence of symptoms of shock and more rapid recovery from operation. . . Because of the obvious importance of such
an effect of desoxycorticosterone acetate, both in war medicine and in general surgery, it was felt desirable to investigate the problem critically and objectively in the case of human beings. The results of observations on nineteen women undergoing radical mastectomy for treatment of carcinoma of the breast form the material for this study. Ten of the patients in this series were not given any desoxycorticosterone acetate and served as controls. The remaining nine were given the hormone preoperatively. The results of this study suggest that the preoperative administration of desoxycorticosterone acetate to women undergoing radical amputation of the breast is without benefit in the prevention of surgical shock. 9 references.

J. C. M. C.


"For some years this laboratory has examined the quantitative effects of local anesthetics upon nerve action-potentials. It was found that for sciatic nerve of R. Piniens T log R = Z when: T is the elapsed time in minutes between the application of the anesthetic and a decrease in action potential of 80 per cent. R is the ratio molarity—minimum effective molarity, minimum effective molarity Z is a constant. We propose to call the quantity Z the nerve-modulus for local anesthetics. It was found closely to approximate 5.50 for five local anesthetics of unrelated chemical structures. In the determination of local anesthetic-potency it is a common practice to use the minimal effective concentration (Mn) as a criterion of potency. Mn is frequently determined by successively testing solutions of decreasing concentrations. Because the relationship between block-time and molarity is hyperbolic the experimental determination of the minimum effective concentration presents practical difficulties. The use of the modulus Z renders this procedure unnecessary as from it the minimum effective concentration can be readily calculated. . . .

"The modulus permits direct comparison of solutions of unlike molarities. . . . For anesthetics having prolonged action such as Nupercain the calculated Mn was found to exceed the determined Mn. These anesthetics block nerve-conduction for much longer periods than those for which the modulus was found to hold, recovery-time in some instances being as long as 3 or 4 hours contrasted with 30 minutes or less for anesthetics such as cocaine and procaine. The modulus proves useful in making rapid preliminary tests of new compounds. When it is found that the recovery time after 80 per cent block is longer than 30 minutes, the calculated Mn should be checked by direct experiment before attempting to use the modulus to calculate the relative potency P."

J. C. M. C.


"This investigation was instigated by an unfortunate anesthetic complication which occurred in the Neurosurgical Service of the Massachusetts General Hospital in 1938. A young woman who was rapidly losing her vision because of a hypophysial adenoma that compressed the optic chiasm had a complicating severe bronchietasis. Operation was therefore undertaken with only local infiltration anesthesia. The moment the tumor had been satisfactorily exposed; however, the patient lost her nerve and insisted that she be