
"Numerous reports relative to the anesthetic activity of chlorine, bromine and iodine derivatives of the lower members of the methane and ethylene series of hydrocarbons have been made... Fluorine derivatives of the lower hydrocarbons have, however, received no such extensive study... We have had the opportunity during the past two years of testing some forty-six fluorine compounds for their anesthetic activity... Although most of these substances contain other halogens in addition to fluorine, there have been sufficient fluorine compounds in this series to show that these are not as inert physiologically as previously thought... The anesthetic activity of forty-six hydrocarbons... has been determined in mice. Eighteen of these forty-six compounds have been used on dogs to study their effect upon the blood pressure and changes in the cardiac rhythm as shown by electrocardiographic examination. Data obtained with four of these compounds are such that further study of them as anesthetic agents is indicated."

[The four compounds are CF₂CHBr₃, CF₂CHBr₂, CF₂CHClCH₂Cl and CHF₂CICICH₃.] 6 references.

J. C. M. C.


"The two ethers which are generally employed as inhalation anesthetics are symmetrical ethers, namely diethyl and divinyl ethers. Our previous studies with mixed ethers such as cyclopropyl methyl, cyclopropyl vinyl and isopropenyl vinyl ethers, prompted us to study the simple isomer of ethyl ether, i.e., n-propyl methyl ether... n-Propyl methyl ether is a volatile, colorless liquid with a characteristic ethereal odor: the boiling point is 39 C. and the specific gravity 0.726 at 16 C. The potency of n-propyl methyl ether is approximately 25 per cent greater than that of ethyl ether. In the dog, n-propyl methyl ether anesthetizes produces no functional liver damage as shown by the bromsulfalein test. In these experiments in the rat, dog and monkey anesthesias with n-propyl methyl ether produced no histopathological changes in the liver and kidneys. Neither the monkey's nor the dog's heart showed any significant electrocardiographic changes under anesthesia with n-propyl methyl ether. The blood pressure of the dog remains essentially unaltered under anesthesia with n-propyl methyl ether. This isomer of ethyl ether compares very favorably with ether as an inhalation anesthetic in several species of animals. This first approximation of the anesthetic properties of n-propyl methyl ether, in our opinion, warrants its careful and judicious trial in man by skilled anesthetists. Extensive and intensive studies alone in human anesthesia will reveal whether or not this mixed ether will warrant a place in the armamentarium of the anesthetist."

9 references.

J. C. M. C.


"Tolerance for many drugs can be acquired by human beings as well as by experimental animals. When this occurs the dose of the drug has to be progressively increased in order to