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Surgery

NATIONAL HALOTHANE STUDY The subcommittee found the evidence insufficient to establish or refute a casual relationship between halothane and postoperative hepatic damage. The number of deaths attributable to massive hepatic necrosis was perhaps one death in 10,000 operations. No data were available on the incidence of hepatic necrosis in patients receiving other anesthetics or on the role of preexisting hepatic disease, viral hepatitis or prolonged operative shock as etiological factors in postoperative hepatic failure. Hepatic necrosis occurred more frequently after operations associated with high death rates. Nineteen, or nearly one fourth, of the cases followed open-heart operation with cardiopulmonary bypass, although these procedures accounted for only 1 per cent of all operations in the study. Halothane, rather than being a dangerous anesthetic, had a record of safety as reflected in an overall mortality of 1.8 per cent, compared to an average for all anesthetic practices of 1.93 per cent. No evidence was found to support the imputed risk of halothane in operations performed on the gallbladder or bile ducts, or in craniotomies. Although attention has been directed to patients who received halothane, the possible effect of other anesthetics should not be overlooked. Cyclopropane was followed by a greater incidence of massive hepatic necrosis than any of the other anesthetics. The disproportionately large total number might well have been related to the selective use of this agent for patients in shock. The possibility that cyclopropane damages the liver cannot be excluded, however. Of special interest and concern were the large differences in postoperative mortality occurring among the participating institutions. These differences among institutions, even after adjustments, remain very much larger than the differences among anesthetics. (*Subcommittee on the National Halothane Study of the Committee of Anesthesia, National Academy of Sciences-National Research Council: Summary of the National Halothane Study. Possible Association Between Halothane Anesthesia and Postoperative Hepatic Necrosis, J.A.M.A. 197: 775 (Sept.) 1966.*)