should be given only after adequate pain relief has been assured. The dose of curare, after nitrous oxide induction and intravenous administration of demerol, may be 80 or 100 mg. to provide relaxation sufficient for intubation. Additional doses of curare may be given as needed. Subsequent amounts range between 40 and 60 mg. of curare. During long operations, four hours or more, it may be necessary to give additional demerol.

The effects of nitrous oxide are almost immediately reversed. Recovery from the depressant effects of intravenous demerol may require one-half hour. The cough reflex may return in an additional hour or an hour and a half. The effect of curare lasts approximately one-half hour after its intravenous injection. There is a certain amount of cumulative effect from repeated doses of demerol and also from repeated doses of curare. The safety of the method depends on the ability of the anesthetist to apply his physiologic knowledge to a clinical procedure.

F. A. M.


A series of 188 cases in which cesarean sections were performed form the basis for the comments of the author. Anesthesia in 68 of the cases was ether following induction with ethyl chloride or chloroform. Ether is not the best anesthetic but is often the only one available. Ether makes for poor retraction of the uterine muscle following delivery by cesarean section so that there is often very free bleeding. Spinal anesthesia was used in only five cases. There is good uterine retraction and little postpartum hemorrhage with spinal anesthesia. Sixty-four cases were done with infiltration anesthesia. Novocaine 0.5 per cent was used and between 250 and 300 cc. was the amount usually required. The uterine retraction was excellent and the placenta separates without delay. The fetus usually cries as soon as the head is delivered. The postoperative course is without complications due to the anesthetic. Local anesthesia is especially useful for patients with cardiac disease, diabetes or eclampsia.

Local anesthesia is not suitable for all patients. When an additional intra-abdominal operation is contemplated, or when the patient is apprehensive, some other form of anesthesia may be considered. Medication with morphine gr. ½, omnopon gr. ⅔ or demerol with scopolamine may be given as the operation is commenced.

Eighteen cases of cesarean section were done under cyclopropane anesthesia. There were some occasions when the fetus seemed to be adversely affected. In one case the fetus was stillborn. Pituitrin shock appears to be accentuated when it occurs under cyclopropane anesthesia and may cause a fatality. One should use pitocin or preferably ergometrine, as an oxytocic agent when using this anesthetic agent.

F. A. M.


Since its introduction in 1934, pentothal sodium has attained increasing acceptance by the surgeon and the anesthetist. Until recently it was generally considered that the transition from one stage to another was too rapid and the signs too inconsistent to classify the various planes and stages of pentothal anesthesia. Since weaker solutions of the drug are being used it has become evident that there are definite stages of pentothal anesthesia comparable to the stages of ether and other volatile anesthetics. Pentothal has been given by rectum as a basal anesthetic. There
is some synergistic action when pentothal is given with nitrous oxide-oxygen and with cyclopropane. As a preliminary to spinal anesthesia pentothal is most effective. Pentothal more closely fulfills the postulates of an ideal anesthetic than any other agent yet evolved. By recognizing the limitations and hazards associated with pentothal administration the drug should play an increasing role in present day anesthesia. 6 references.

F. A. M.


Ten cases of gangrene of the extremity at the Cook County Hospital were treated by refrigeration. What once would have been a desperate emergency can now be done as an elective procedure. From a few days to a week of refrigeration is allowed during which time thorough preparation of the patient is carried out. Two cases in this series died from shock and sepsis within twenty-four hours following operation and one case died of bronchopneumonia and auricular fibrillation two months after operation. 5 references.

F. A. M.


Curare has probably come into general use in anesthesia faster than any other drug which has entered the field of anesthesiology. The blocking of the neuromuscular junction is well recognized but there is a continuing interest in other possible pharmacological effects and new variations in the technic of using the drug. Intocostrin has been the only available standardized preparation, but recently the active principle in crystalline form was isolated and the name d-tuboecurarine given to it.

The relaxation necessary for present-day extensive abdominal surgery necessitates a greater dose of general anesthetics than is desirable. Prostration results from the large doses of anesthetics and recovery is delayed. With the use of curare it is possible to limit the amount of a general anesthetic to that necessary for producing unconsciousness and produce relaxation with curare.

One school of thought holds that curare is an aid in those cases in which relaxation is obtained with difficulty. The other school holds that since curare exhibits less signs of harm than almost any other drug we have had, it should be used almost routinely to avoid using any but the lightest doses of general anesthetics.

Unconsciousness may result from extremely large doses of curare but this effect is not dependable. Under very light anesthesia laryngospasms may be encountered upon introducing a laryngoscope. The lighter the anesthesia the greater is the dose of curare necessary to produce relaxation. When the abdomen has been relaxed with curare the bowel is apt to be more relaxed than under spinal anesthesia. Curare may cause an elevation of the blood pressure when the respiratory minute-volume is decreased by relaxation of the abdominal and intercostal muscles. In an occasional patient a moderate vascular relaxation results in a moderate lowering of blood pressure. Ephedrine may be used in such a case. Curare covers up all the signs of anesthesia except the reflex response of the diaphragm to stimulation. Holding or irregular movements of the diaphragm will occur if the anesthesia is at the level between the second stage and the first plane of the third stage.

Nitrous oxide and pentothal together are well adapted to use with curare.