the cervical muscle fibers. 12 references.

F. A. M.


The drawback of ether as an anesthetic for general surgery is that in almost every case the patient goes through a period in which he is nauseated and vomits. On the basis of the efficient action of pyridoxine in vomiting of pregnancy, injections of pyridoxine were given before operation. No more vomiting occurred and nausea was slight. Twelve cases were studied with a control of a similar number. Each of the patients in the control series vomited at least a few times and everyone was nauseated. Premedication of morphine, atropine and nembutal was similar in both series. One hundred mg. of pyridoxine were given before the operation and one injection of 100 mg. pyridoxine one hour after operation. It seemed that patients who had pyridoxine treatment got on much better than those who had not been so treated.

F. A. M.


The present-day anesthetist, unlike his predecessor, has learned to control some of the functions of the human body. The potency of an anesthetic agent is measured by the muscular relaxation that it produces at a certain plane of anesthesia. The planes of anesthesia, however, are determined by the degree of respiratory depression. It follows that the potency of an anesthetic agent is in reality being measured by the muscular relaxation produced at a certain degree of respiratory depression. Recent work with curare explains some of the variations in the effect of different anesthetic agents. Some agents, such as ether, produce a curare-like action, and it is due to this action that they produce relaxation without undue respiratory depression.

With pure preparations of curare the anesthetist is now able to produce full relaxation with anesthetics of low potency and in light planes of anesthesia. With curare the anesthetist is also able to depress the respirations and thus aid the surgeon especially in thoracic operations. By the use of controlled respirations he is able to combat respiratory depression, in fact, he is able to breathe for the patient. Much has still to be learned about post-operative nausea and vomiting. There is evidence which suggests that there is a relationship between pulmonary irritation by the anesthetic agent and malaise. Ether, notorious for its nauseating properties, heads the list of irritating anesthetic agents. The anesthetist attempts to aid the cardio-vascular system by the intravenous administration of fluids and by the use of vasopressor drugs.

F. A. M.


Curare has rendered anesthesia for upper abdominal surgery safer. Careful preoperative and postoperative treatment, in conjunction with careful administration of the anesthetic, must counteract the surgical interference and time factor involved. The infant who has pyloric stenosis must be treated for dehydration. The anesthetic of choice for infants is nitrous oxide and oxygen with a minimal amount of ether. No positive pressure is permitted. The alternative method for infants with pyloric stenosis is local anesthesia. For adults the anesthetic of choice is one, or a combination of the less toxic drugs with curare.
If curare is not available a combination of pentothal, cyclopropane and oxygen, followed by a subcostal intramuscular field block is the next choice. Local anesthesia does not allow for complete intraperitoneal examination and general anesthesia may have to be induced. High spinal anesthesia has an incidence of respiratory complications about the same as for ether. With the anesthetic drugs available today ether is considered unnecessary for operations on adults.

In the technique of using curare or cyclopropane experience with controlled respiration is essential. The passing of intratracheal tubes is not necessary in all types of upper abdominal surgery. A "cuffed" tube is indicated in cases of intestinal obstruction. Replacement of fluid loss, during and after operation, should be a routine procedure. Immediately after discontinuing the anesthetic and throughout the post anesthetic period attention should be given to the mucus in the respiratory tract to avoid atelectasis. Oxygen administration can be carried out either by an intranasal catheter or by an oxygen tent. 5 references.

F. A. M.


Full credit for the modern development of curare must be given to Gill, McIntyre and Bennett, at the University of Nebraska, conducted the first modern pharmacological study and clinical trial of the drug. It was first used in psychiatry in connection with convulsive shock therapy. Griffith and Johnson introduced curare to the field of anesthesia in 1942. Intocostrin—a standardized product of greater purity—is a clear, amber-colored solution supplied in vials containing 20 mg. of the crude drug per cubic centimeter.

The primary site of physiologic action of curare is peripherally at the myoneural junction. The action is progressive on muscle groups, starting with the head and extending downward to the trunk and extremities, and lastly to the muscles of respiration. The diaphragm is the last muscle to be affected. Recovery from the effects of curare seems to be in the reverse order. Curare is rapidly eliminated from the body. Most of it is broken down in the liver and the remainder is excreted unchanged by the kidneys.

It is thought that curare effect does not extend to structures innervated by postganglionic fibers, such as glands and smooth muscles. Certain actions of curare have yet to be proved. Curare is nonhypnotic and nonanesthetic. It is used in anesthesia because of the excellent relaxation that is provided. The anesthetist must be prepared to treat respiratory depression or apnea which may occur. Smaller than usual doses should be used in