With two separate syringes, 10 units of intocestrin and 25 mg. of pentothal are given from the beginning of induction, with 65 to 70 per cent of nitrous oxide. Maintenance is conducted with 500 cc. per minute each of nitrous oxide and oxygen, and just enough curare and pentothal to provide relaxation and to keep the patient quiet. Hiccups may develop during abdominal surgery with this combination of anesthetics. They may be controlled with the addition of cyclopropane or a local anesthetic drug given intravenously.

5 references.

F. A. M.


In spite of an increasing popularity of anesthetic agents with prolonged action some proctologists hesitate to use them because of fear of certain complications. This series of 1,510 cases is reported to show that some of these fears are unfounded. The product used in this study has the trade name "anucaine." Its formula is: basic procaine—½%; butesin—1%; anestesin—5%; benzyl alcohol—5% and sweet almond oil q.s. The contraindication for the use of oil soluble anesthetics in proctology is manifest infection such as an abscess in the area to be injected. The operating anesthetic, in this series "metycaine" caudal block, was given first followed by injection of the oil anesthetic. Ten or 15 cc. of anucaine was injected, by various similar technics, in an area around the anus. Subcutaneous tissues, the lower border of the levator muscle and through the infra-levator fat to and slightly into the external sphincter muscle were the levels at which the solution was deposited. A finger was kept in the anal canal and lower rectum as a guide to prevent puncture of the mucous membrane.

Eochymosis under the perianal skin was the most common reaction; only one abscess occurred. Allergic reactions occurred in 4 of the 1,510 cases and all of these patients belonged to the medical fraternity. There were 3 cases of generalized urticaria, very severe and lasting at least three weeks. Preoperative patch tests were not done but following the reactions patch tests were made and were strongly positive. This precaution should be followed in all cases. The fourth allergic reaction was an Arthus phenomenon. No pus was obtained when incision was made over an indurated area. Pain was definitely lessened as indicated by the need for fewer narcotics. Catheterization was done less frequently, healing time was not prolonged, hospitalization time was shortened and the patients were able to resume their duties sooner.

7 references.

F. A. M.


A patient who complains of or who has such a disease as peptic ulcer, spastic colitis and pylorospasm is typical of the majority of patients with a predisposition to some personality suffering. These people are usually tense, tend to drive themselves unduly and disregard regulations for normal and regular living. The question of the amount of sedation that will reduce the sensitivity of such a person without impairing his efficiency, is a delicate one. Phenobarbital, gr. ¼, repeated four times a day has been found clinically to be the most advantageous. The combination of this dosage of phenobarbital with suitable antispasmodics in a harmonious proportion must be worked out to give maximum efficiency.
Donnatal has been used at the Beth David Hospital. "Donnatal has the following formula: hyoscyamine sulfate 0.1037 mg., atropine sulfate 0.0194 mg., hyoscine hydrobromide 0.0065 mg., phenobarbital 16.2 mg. (gr. ¼). This combination has lent itself well to this study." The series was made up of 100 cases given donnatal and a control group of 95 cases. It was found that this preparation had a good antispasmodic effect without the toxic side actions of the individual drugs of the belladonna group. Most of the patients who made up this series were cases of gastrointestinal spasm of the vagotonic variety and thus lent themselves to the use of this preparation. Donnatal seems to be more effective than either atropine or belladonna alone and also more effective than the synthetic preparations. 21 references.

F. A. M.


In order to determine whether curare could safely be used to produce apnea in intrathoracic operations, the physiologic effects of the drug on dogs was studied. A series of 50 dogs was given enough curare to produce apnea for two to eight hours. Artificial respiration with oxygen was carried on manually. It was concluded that:

1. Curare of itself does not cause death in apneic doses.
2. Artificial respiration must be continued until intercostal muscles are contracting strongly to prevent death from atelectasis.
3. Vision and hearing are present after curarization and the reflex arcs are intact.
4. Twitching of the platysma (apparently less affected than other muscles) was the first sign of recovery.
5. A rise in blood sugar and glycosuria occur.
6. In the electrocardiograph, QRS voltage is decreased and T-waves are variable, the tracing resembling that of potassium poisoning. Following curare, a marked lowering of potentials with slight dysrhythmias were observed.
7. No change in reaction occurred after repeated administration of the drug. Neither increased tolerance nor sensitivity appeared.
8. Curare does not pass the placental barrier or paralyze uterine musculature.

The apneic technic for clinical use is described. After heavy medication with morphine, scopolamine and barbiturate, induction is performed with nitrous oxide. Curare is given, an intratracheal tube placed and artificial respiration carried out. Respiratory arrest is maintained while the pleura is open. The signs of light anesthesia are: diaphragmatic contractions, slight muscle twitching, movement of the facial muscles, and rise in blood pressure. Treatment is by means of administration of additional morphine intravenously. To terminate apnea, patient is allowed to build up carbon dioxide. Augmented respiration is continued until the intercostals are functioning adequately. Fill the bag with air, aspirate secrections before removing the tube. Do not remove the tube or stop artificial aid to respiration until the intercostals are fully active, or atelectasis invariably occurs. Muscular weakness persists for some hours. The after care is important and frequent turning, coughing and deep breathing are encouraged.

The advantages of this technic are that cautery may be used, profound relaxation is produced, respiration is