of endotracheal anesthesia. Quiet breathing aids intra-abdominal surgery and in operations in the mouth the anesthetist does not interfere with the surgical field. Skill in intubation can be useful in other conditions than surgery. Relief of respiratory obstruction, tracheo-bronchial aspiration and lipiodol injection for radiological examination are some of the uses. Patience on the part of the surgeon while the young anesthetist learns the technique of intubation will be rewarded by smoother and safer anesthesia.

F. A. M.


The oldest and best methods of analgesia employed in surgical treatments of the upper arm are the two evolved by Oberst and Kullenkampff. These methods are not without danger. Endoneural methods of peripheral infiltration anesthesia can be used with complete success only when the nerve passes over or lies within a bony canal. Analgesia of radial and median nerves at the elbow and above the elbow was advocated by Wiedkopf. These two nerves were investigated and dissections showed that suitable sites for nerve puncture exist.

One and one-half cm. below the head of the head of the radius a line is drawn perpendicular to the long axis of the arm. With the arm in supination a line is drawn at right angles to the first line, from the junction of the thenar and hypothenar eminences. The radial nerve lies at a depth of above one and a half cm. below the point of intersection of the two lines, directly on the bone. A perpendicular thrust of the needle should cause an electric sensation. Slight deviation may be caused by the needle.

The median nerve is located by first locating the lateral border of the Pronator Teres. One half cm. medial to this, level with the lateral epicondyle, the ulna can be reached by a perpendicular puncture of the Pronator Teres and the Brachialis muscles. By carefully withdrawing the needle, a level will be reached at which free movement will be possible. When the needle is piercing both muscles, this movement cannot be felt. When the level of free movement is reached, the needle is turned to an angle of about 180 degrees and pushed carefully in a lateral position until resistance is felt. This resistance is caused by the median nerve.

In both cases, when the nerves are located 5 to 10 cc. of 2 per cent novocain are injected. The technic has been tested on 20 cases. Cutaneous nerves can be anesthetized by subcutaneous circular infiltration. This method is suitable for cases of finger panaritias where an accompanying lymphangitis reaches the first phalanx. In patients with myocarditis, pulmonary tuberculosis or emphysema this method is useful. For open fractures, advanced pyogenic processes of the finger, or serious injuries of the arm this method can well be employed.

F. A. M.


Mrs. J. S., aged 49, was operated for the removal of carcinoma of the pylorus. A total gastrectomy was done under ethylene-ether anesthesia. A Magill endotracheal tube was used. Anesthesia lasted for three and three-fourth hours. Recovery from the operation was uneventful. Two years previously she had had a thyroidectomy. Intermittent attacks of hoarseness followed the thyroidectomy. This was attributed to vocal abuse and dis-
appeared a few days after appropriate therapy.

About two months after the gastrectomy she complained of hoarseness which had persisted from the time of that operation. During the past three weeks the symptoms had become more severe and she had become almost aphonic. On examination of the larynx two large, pedunculated granulomatous masses were found. These were attached to the vocal processes and almost occluded the posterior half of the larynx. Under local anesthesia direct laryngoscopy was performed. The masses, which were about the size of a pea were lying anterior to the chords at the posterior commissure. They were removed with polyp forceps and found to be granulation tissue with organization.

Because of the possibility of this type of granuloma occurring after the use of an endotracheal tube, any symptoms referable to the larynx after intratracheal anesthesia should be carefully investigated. Early therapy may prevent the formation of the polypoid pedunculated lesions. 5 references.

F. A. M.


The records which make up the date for this study were obtained from the files of the 56th Evacuation Hospital while overseas. At Anzio Beachhead, during the period from January 30, 1944 to March 31, 1944 there were 94 postoperative deaths in the 56th Evacuation Hospital. Statistical records of 82 of these were studied.

Hemorrhage was found to be the principal cause of death after abdominal injuries. Toxemia from peritonitis was the second greatest cause. Injuries of the liver and of the colon were responsible for most of the deaths in this series. The wisdom of Beecher's contention that preparation of seriously wounded men for surgery and support during surgery is impossible without whole blood cannot be overemphasized. Low titer type O blood should be available for emergency use. Plasma should be used to sustain the patient until blood is obtained.

Pentothal anesthesia was the anesthetic used in 3 patients whose deaths were attributed to the anesthetic. Excess morphine contributed to some of the fatal cases. Sudden absorption of a previously administered drug may follow improved circulation when shock is treated. Aspiration of vomitus occurred in 5 patients.

A combination of anesthetic drugs seemed to be tolerated by these seriously injured patients better than any single agent. Abdominal rigidity is a common occurrence after penetrating abdominal wounds. It is reasonable to assume that this rigidity is an effort of the body to check intra-abdominal hemorrhage and to prevent spilling of stomach or intestinal contents. The surgeon should always bear in mind that anesthesia will remove this protective rigidity and should proceed to control the bleeding as soon as the patient is asleep. The anesthetist must be prepared for a fall in blood pressure when the peritoneum is incised and have blood for transfusion ready in advance.

Anoxia, as evidenced by cyanosis, which exists before anesthesia, should be corrected. By denitrogenizing the patient before starting the anesthetic, the anesthetist will find that less anesthetic will be necessary. Since most seriously wounded patients have some degree of anoxia it is well to give them oxygen routinely before induction of anesthesia.

Spinal anesthesia was considered to