

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.

TURNBOW, W. R.: *Anesthesia for Severe Abdominal Wounds, Based on War Experiences with the 56th Evacuation Hospital*. South. M. J. 40: 563-566 (July) 1947.

The records which make up the data 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. In-

juries 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 over-emphasized. 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

be unsuitable for seriously wounded patients. It may be used, however, if there is no hemorrhage in good risk patients with wounds of the rectum or in older injuries after circulatory adjustment has been made. 4 references.

F. A. M.

WADDY, F. F.: *Spinal Analgesia for the Diagnosis of Arterial Dysfunction in the Lower Limb*. *Anesthesia* 2: 93-99 (July) 1947.

Much progress has been made in the investigation of vaso-motor spasm in the limbs since Leriche's paper in 1921 on the sympathetic enervation of the limbs. The author confines his discussion to the lower limbs. A review of the anatomy relevant to the subject precedes the discussion of clinical material. Since the cutaneous sensation in the feet is supplied from the third, fourth and fifth lumbar and the first and second sacral roots, the author finds it impossible to believe that a low spinal can be relied upon to block the sympathetic nerves to the lower limbs.

The writer has used a block of all segments up to the fourth dorsal without using a preliminary sedative and without using analeptic drugs. In all cases where a skin temperature elevation was obtained, lumbar sympathectomy later proved efficacious. Sedatives, anesthetics or natural sleep will effect a temporary sympathetic release which will give a rise of skin temperature. For that reason sedatives are omitted before the blocks. Analeptics are omitted in order that the full effect of paralyses of the sympathetic nerves may be observed. The temperatures of the feet are measured by the skin thermometers attached to the dorsum of the foot.

Spinal analgesia is obtained as high as the 4th dorsal segment. The Howard Jones method, using 1/1000 or 1/1500 nupercaine is employed. Care is taken in all details which could affect

the skin temperature. The anesthetist should be satisfied that the cardiovascular system of the patient will withstand the stresses placed upon it by a high spinal analgesia without the use of analeptic drugs. Gangrene of the leg or foot may be precipitated if organic disease of the arteries is present. 7 references.

F. A. M.

WOOLMER, RONALD: *Analgesia in Dentistry*. *Brit. Dent. J.* 82 256-259 (June 20) 1947.

Fear of pain undoubtedly deters patients from seeking dental treatment. The purpose of analgesia in dentistry is to reduce or eliminate pain. The use of conduction analgesia greatly extends the scope of oral surgery, but certain precautions must be observed to get the best results. Asepsis is important. Prevention of syncope, or, when it occurs, prompt treatment, is important. Although there are no certain means of averting toxic reactions to the local anesthetic, premedication with barbiturates probably has some effect in guarding against them.

Of the inhalation anesthetics useful in producing dental analgesia, chloroform, because of its high toxicity, has been discarded. Ether is not suitable for analgesia because of its pungency. Vinesthene is difficult to control because of its volatility. Cyclopropane is so potent that it is difficult to avoid anesthesia. Ethyl chloride is considered to be a toxic and dangerous drug but has been used extensively for analgesia. Nitrous oxide with oxygen or with air is in many ways superior to other inhalation agents. Trichlorethylene has recently been used for both analgesia and anesthesia shows great promise in dental work.

Premedication is of great help, especially when nitrous oxide with air is to be used. With any form of analgesia