

local anesthetic procedures can all be done by the anesthetist.

Instruction is second only to the actual administration of anesthetics in the duties of the anesthetist. All medical students should receive lectures and demonstrations in the administration of anesthetics. At least one question in the final surgery examination should have an anesthetic reference and in the oral examination one question on elementary anesthesia should be asked by an anesthetist. The anesthetist should have a voice on the medical committee which manages the hospital. He should have equal rank and equal pay with members of other medical specialties. The anesthetist should be the buffer between the surgeon and the many details of a smooth working operating team.

F. A. M.

ORGANE, GEOFFREY: *Anaesthesia in Thoracic Surgery*. M. Press 216: 461-464 (Dec. 18) 1946.

Anesthesia for operations inside the chest is complicated by more or less extensive disease of the lung. With the chest open the anesthetist is faced with the problem of maintaining normal circulation and respiratory exchange as well as counteracting a possible mediastinal shift. To overcome these difficulties some form of artificial respiration becomes necessary. "Controlled" respiration or "assisted" respiration are two methods used during open chest operations. Endo-bronchial insufflation is an alternative method now little used. Should a broncho-pleural fistula occur the remedy is a constant flow of fresh gases under pressure.

Before operation postural drainage and breathing exercises may be suggested. For minor operations on the chest wall light general anesthesia or local infiltration may be used. Local anesthesia is used for thoracoplasty

for pulmonary tuberculosis. Fairly heavy premedication is produced with papaveretum gr. 1/3 and scopolamine gr. 1/150 with further intravenous injection of papaveretum according to the degree of depression observed in the anesthetic room. The local anesthetic solution may be nupercaine 1/2,000 and procaine 1/400 with fresh adrenaline 1/300,000. Where scapular retraction is needed, a brachial plexus block should be used. Paravertebral block is most satisfactory for anesthesia for the ribs. Intercostal block is adequate for the lower ribs. These blocks are completed by subcutaneous infiltration of the line of incision.

When the pleura is stripped, paradoxical respiration and coughing may occur. The cough may be eliminated by an ipsilateral vagus nerve block. If the pleura is opened a general anesthetic should be given in order that respirations can be assisted. The late results with general anesthesia are less satisfactory than with local and hemorrhage is considerably more.

For major operations inside the chest wall the general anesthetic agents in favor at the present time are cyclopropane and ether. When controlled respiration is to be used with ether, the medulla should be depressed by the intravenous injection of morphine in addition to the usual premedication. Tracheal intubation, postural drainage, suction, bronchial intubation or bronchial block, achieved by packing or insertion of a catheter into the main bronchus, are all used in combating secretions.

For lobectomy, pneumonectomy or extrapulmonary tumors where secretions are not a major problem, a face piece is often satisfactory. The mechanical stimulus of operations upon the heart under cyclopropane anesthesia may lead to ventricular fibrillation. Irregular pulse calls for local infiltration with procaine. If fibrilla-

tion has occurred, the injection of procaine, 2 per cent, 10 ml., into the ventricle may restore a normal rhythm. For operations on the diaphragm controlled respiration is essential. At the end of any thoracic operation the cough reflex should be active, spontaneous respiration should be present and the lungs should be expanded. A large proportion of patients will require oxygen in the postoperative period. 1 reference.

F. A. M.

TOWNSEND, C. G.: *Anesthesia for the Surgery of Peripheral Vascular Disease*. Post-Grad. M. J. **22**: 67-71 (Feb.) 1946.

The anesthetist can provide valuable assistance to the surgeon both in the diagnosis, therapy and surgery of peripheral vascular disease. It is essential that the anesthetist who is administering a general anesthetic to a patient with peripheral vascular disease does not produce anoxemia. Failing peripheral circulation and often a poor myocardium may have already resulted in anoxia of the tissues. A perfect airway, amply oxygenated atmosphere, and a light level of anesthesia will help to avoid anoxemia. Cyclopropane is the inhalation agent of choice. Nitrous oxide, although non-toxic, may not produce adequate anesthesia without anoxemia. In spite of some objections to diethyl ether there are some factors in its favor. Light ether anesthesia can be maintained with a more highly oxygenated atmosphere than is the case even with cyclopropane. Ether produces a peripheral vaso-dilatation and the cardiac depressant action is minimal. Pentothal, in small doses and in low concentration, can be used to anesthetize the vascular case. Premedication should be given with caution and in reduced dosage for the poor risk. The age of the patient as well as the

severity and possible duration of operation should be considered in selecting a general anesthetic. Spinal analgesia is of value in the diagnosis and treatment of vascular cases. The risk of lowering the blood pressure may court disaster in a patient who may have a grossly impaired coronary circulation. Local analgesia such as brachial plexus, common peroneal, or tibial block have largely replaced indiscriminate infiltration. Digital nerve block, in the presence of vascular disease, may increase the danger of gangrene. Recently, refrigeration has been developed in the treatment and surgery of certain vascular injuries and diseases of extremities. Refrigeration relieves pain, stops the output of toxic metabolites and provides complete anesthesia prior to amputation. 22 references.

F. A. M.

OSGOOD, C. W.: *Convulsive Seizures Following Barbiturate Withdrawal*. J.A.M.A. **133**: 104-105 (Jan. 11) 1947.

The controlled employment of the barbiturates in the care of institutionalized patients has been safe and effective. Withdrawal symptoms have been observed only on infrequent intervals in the Milwaukee Sanitarium during the past fourteen years. Six patients who were being treated for nervous and mental disorders developed convulsive seizures following reduction or discontinuance of barbiturates. None of the patients had a previous history of convulsions. Four of the patients developed the convulsions during gradual withdrawal. Larger than average doses of the barbiturates had been taken by the 6 patients over periods of months or years. Neonal sodium, pentobarbital sodium, phenobarbital sodium, seconal sodium and sodium amytal were the drugs which had been used. No subsequent ill effects followed