tension could be modified and whether this would aid in producing a clinical remission and symptomatic relief. On March 12, at 6:45 p.m., 5 cc. (500 mg.) of tetraethylammonium chloride (‘etamon’) was given intravenously over a five minute interval. Within thirty minutes the blood pressure had fallen from 230 systolic and 140 diastolic to 60 systolic and 20 diastolic, and the patient was cyanotic, comatose and in evident shock with belabored respiration. Nikethamide (‘etamaine’) and epinephrine were given intravenously and later by the intracardiac route. By 10:30 p.m. the blood pressure had returned to 120 systolic and 90 diastolic, but her respirations were slow (8 to 10 per minute) and she appeared only little improved. Her pulse rate was 110 and thready, and her skin was cold and moist. Her blood pressure again fell to shock levels, and at 12:30 a.m., slightly less than six hours after the administration of the tetraethylammonium chloride, she died. . . . We believe that this death was directly attributable to the use of tetraethylammonium chloride. . . . Postmortem observations did not reveal any coincidental pathologic change which might have been held responsible for the sudden vascular collapse.’’

J. C. M. C.


‘‘There are two methods of measuring blood loss in surgical operations, namely, colorimetric and gravimetric. We were primarily interested in a method which would indicate the actual blood loss at any given stage in the surgical procedure, and the gravimetric method is the technic which would enable us to do this. . . . We measured the blood loss during two hundred and seventy major operations. Clinically the results in most short procedures were not striking. Herniorrhaphies and appendectomies were significant in that the blood loss was rather small. Patients with hemorrhoidectomies, salpingectomies and thyroidectomies averaged about 125 cc. blood loss. The average blood loss for ten biliary operations was 300 cc. Gastric and intestinal resections showed a surprisingly low figure. The average loss for twelve gastric resections was 503 cc. . . .

‘‘In vagotomy there was an average blood loss of 422 cc. In our series of ten nephrectomies blood loss averaged 478 cc. In suprapubic prostatectomy in a series of 10 cases there was a rather pronounced loss at the time of operation, averaging 551 cc. . . . Blood loss when added to the loss of blood during the next twenty-four hours results in a considerable amount of blood lost, especially for the age group in which these operations were usually performed. . . . Neurosurgical, intrathoracic and orthopedic procedures were particularly impressive, in that blood loss was known to be great but could rarely be estimated correctly within 500 cc. Before our study we occasionally saw early signs of shock during these operations, indicating that we were behind in our replacement therapy. This was most frequently observed during orthopedic operations where the use of a tourniquet was not possible or permissible. . . . Blood loss in laminectomies was found to average 1082 cc. . . . The average blood loss for lobectomy, pneumonectomy and esophageal operation in our series of 25 cases was 2073 cc. . . . In patients undergoing thoracoplasty the blood loss will vary with the stage of the procedure, being higher for the first stage and considerably lower for the third. The over-all average for eleven operations was 1182 cc. This does not include the 1 death due to massive rapid hemorrhage of over
ABSTRACTS

4500 cc. The blood loss in neurosurgical treatment is highest for intracranial procedures. During operations on the spinal column or spinal cord 500 cc. of whole blood should be administered. . . . The time required to perform an operation is exceedingly important. The effect of blood loss depends on the relationship of the amount lost to the total blood volume, the rapidity of loss and the preoperative status of the patient. . . . Knowledge of blood loss obviates the possibility of insufficient or excessive replacement therapy.”

J. C. M. C.


“In order to investigate (a) the incidence of spasm; (b) the effectiveness of the adjuncts (cocainisation, curare, etc.) and (c) the percentage of successes, endotracheal intubation has been attempted under thiopentone alone in 200 cases, in 100 through the nose by the blind method, and in 100 by direct vision through the mouth. . . . From our experience we believe that aids to intubation such as deep inhalation anesthesia, carbon dioxide, cocaineisation and curare are unnecessary. . . . In our series of cases, severe intractable glottic spasm never occurred. Minor degrees of spasm were invariably quickly relieved by supporting the jaw; no further attempt at intubation being made until the spasm had ceased.”

J. C. M. C.


“One of the most important features of thoracic physiology is that all of its organs function under a pressure less than that of atmospheric air. This negative pressure is immediately altered when the pleural cavity is opened to atmospheric level. . . . Disturbances in the normal negative intrapleural pressure by creation of an open pneumothorax is no longer a serious problem since the introduction of modern anesthetic technic. . . . Reviewing some 224 consecutive cases of transthoracic operations for cancer of the esophagus performed at the Mount Sinai Hospital, some interesting observations have been made. . . . The earliest respiratory phenomenon occurs when the surgeon enters the pleural cavity. Anesthesiologists have frequently failed to make adequate provision to safeguard against the sudden and rapid collapse of the lung on the corresponding side. . . . Maintenance of positive pressure on the rebreathing bag permits a gradual deflation of the lung to partial or semicollapsed levels and militates against . . . sudden and rapid collapse. At no time during the entire operative procedure should the lung be permitted to collapse completely. . . .

“There is no need to stress the fact that one of the great advances in anesthesiology has been the development of intratracheal intubation methods. . . . Occasionally, the surgeon may accidentally open the opposite pleural cavity while freeing a particularly adherent tumor. The alert anesthesiologist can recognize this accident by an immediate diminution in the tidal exchange, increased respiratory rate, tachycardia, fall in blood pressure, and moderate gray cyanosis. Unless swift and adequate closure of the opening is made, death will result in the majority of cases. In our series, this accident occurred 12 times. Nine of these succumbed in from a few hours to the third day postoperatively, with complications definitely referable to the respiratory system. . . . Upon completion of the operation an effort is