

ABSTRACTS

Editorial Comment: A fixed style of presentation for this department of ANESTHESIOLOGY has purposely not been defined. It is the wish of the Editorial Board to provide our readers with the type of abstract they desire. Correspondence is invited offering suggestions in regard to the length of abstracts, character of them, and source of them. The Board will appreciate the cooperation of the membership of the Society in submitting abstracts of outstanding articles to be considered for publication.

UHL, J. W.; LIVINGSTONE, H. M., AND ALLEN, J. G.: *Anesthetic Management for Massive Intra-Abdominal Resections*. Am. J. Surg. 81: 554-561 (May) 1951.

"We wish to present our experience in a series of 110 patients who were subjected to massive intra-abdominal resections. Many of the same physiologic problems also exist in intra-abdominal surgery for massive injuries; however, in this series the operations were for the excision of extensive malignant lesions with metastases. . . . The premedication in the majority of instances consisted of a combination of morphine sulfate and one of the shorter acting barbiturates, usually sodium pentobarbital. The premedication was administered one to one and a half hours prior to the scheduled time of surgery. It is judicious to prearrange the time so that the maximum effect of the premedication is reached before the induction of anesthesia. . . . Of the 110 anesthetics administered a total of seventy-seven patients received supplemental anesthesia, that is, another agent or combination of drugs, were given in addition to the basic anesthesia. . . . Analeptics, including ephedrine, desoxyephedrine, neosynephrine, oenethyl and caffeine with sodium benzoate were administered to many of these patients but only as adjuvants until proper fluid replacement could be accomplished. . . .

"Normal hemoglobin values should be established preoperatively and maintained during the operation and postoperative period. The oxygen saturation of the circulating hemoglobin should approach normal levels at all times. . . . Electrolyte balance is important in reducing the hazard of anesthesia and operative procedures. . . . Hemorrhage, because of disordered blood coagulation, is especially embarrassing to the surgeon and may confront the anesthetist with the requirement for unexpected transfusions to combat unusual blood loss. Whole blood transfusions are most effective in controlling the bleeding of prothrombin deficiency and are beneficial although less effective in hemophilia and thrombocytopenia. . . . The volume of blood transfused during the operative period may be very large in massive operative procedures for malignant disease or extensive trauma. . . . The amounts given ranged from 550 ml. to 11,000 ml. and averaged 1300 ml. Most of these patients received blood throughout the operation and in the postoperative period. . . . When patients are given large volumes of blood or plasma rapidly, citrate intoxication may become a problem. . . . Symptoms of calcium tetany may appear. . . . A suitable ionizable calcium salt can be administered at intervals to prevent tetany. The intravenous administration of 1 Gm. of calcium glu-

conate after every 1500 cc. of rapidly transfused whole blood or plasma is generally sufficient. . . . Such conditions as existing or impending shock, disturbed cardiac function and loss of large quantities of blood without adequate and rapid replacement caused a large number of these patients to show evidence of anoxia of the stagnant type. The oxygen saturation of the circulating hemoglobin should approach normal levels at all times and the photoelectric oxyhemograph provides a rapid method for making such determinations. Spinal anesthesia has a definite advantage over other methods since a concentration of 100 per cent oxygen can be administered continuously by mask to these hypoxic individuals without danger of lightening the depth of anesthesia." A. A.

ARNER, O., AND DIAMANT, H.: *Respiratory Tract Lesions Following Intratracheal Anaesthesia*. Acta Chir. Scandinav. 101: 75-84, 1951.

"Intratracheal anesthesia has some drawbacks which are due to the insertion of instruments and tubes into the respiratory tract and the injury possibly resultant from this procedure. . . . Of recent years intratracheal anaesthesia has been employed in a large number of cases at the Karolinska Sjukhuset. The general impression was that this technique of anaesthesia did not to a larger extent entail complications involving the upper respiratory tract. Since it might seem valuable to collect evidence as to possible injury and discomfort after intratracheal anesthesia, the present writers have examined a series of patients who had undergone anaesthesia of this type. The series comprises 112 patients, who were carefully examined by inspection of the fauces and vocal cords both prior and subsequent to operation, the latter repeatedly. . . .

The authors were able to demonstrate that in a proportion of the instances, changes which can be safely attributed to merely the pressure of the inserted tube, develop in the fauces and laryngeal meatus. Major surgery in the neck will in many cases entail changes within the fauces and larynx, which are probably due principally to the operation performed. Traumatic lesions on the faucial pillars may be deleterious especially to the epiglottis. On the other hand, the vocal cords seem to be fairly resistant to injury. All these changes are quite transient and cause but mild discomfort to the patients. Vocal cord granulomas or other late changes were not observed."

A. A.

CULLEN, S. C.: *Recent Advances in Anesthesiology*. Wisconsin M. J. 50: 351-364 (April) 1951.

"In so many fields in medicine—and anesthesiology is no exception—the truly significant advances have been the result of the introduction into clinical practice of new and revised fundamental concepts in the basic sciences. The process of the production of complete insensibility to pain on a regional basis or the induction of complete unconsciousness by drugs is relatively recent and elemental. Constant search goes on for new mechanisms for the depression of the perceptive functions and for more complete understanding of the alterations in tissue activity associated with the depression of function. . . . The use of the many drugs available to the anesthetist on a sound physiologic and pharmacologic basis constitutes a significant advance in the field. The drugs and technic to be discussed are used with a deliberate and calculated effort to provide more safe and satisfactory anesthesia for the patient and surgeon, and in this respect there is