

ployed if the blood loss is minimal or if blood or plasma is not immediately available. . . . When it is necessary to administer fluids rapidly through a small needle, a hand roller will aid in propelling the solution through the rubber infusion tubing. . . . Poorly filled veins may be distended satisfactorily by the application of hot, moist packs to the extremities, if time permits. . . . The amount of the solutions needed for the support of a patient in shock will depend on the patient's need and response. . . . The excessive administration of fluid to patients in shock is dangerous and may lead to pulmonary edema and other ill effects. Excessive administration of fluids places an added strain on a heart muscle already weakened. The patient's pulse and blood pressure should be checked frequently during the course of the administration of fluid. In the successful treatment of shock the imbalanced condition should be corrected but it should not be overcorrected."

J. C. M. C.

SHUMACKER, H. B., JR.: *Local Anesthetic Reactions*. M. Ann. District of Columbia 10: 264-267 (July) 1941.

"More is known about precautions which may be taken to avoid local anesthetic reactions than is known about their treatment. The reactions are few in number, and local anesthesia is probably the safest of all anesthetics. Yet every care must be exercised. Proper labeling of solutions; use of only dilute solutions; use of adrenalin except when contraindicated; slow injections with care to avoid intravenous or intrapleural injection; the use of smaller amounts in regions where absorption is known or thought to be rapid, in old and very ill patients, and in those under general ether anesthesia; and the preliminary use of barbiturates should do much to reduce the incidence

of reactions and to make local anesthesia still safer." 2 references.

J. C. M. C.

FERGUSON, L. K., AND LA TOWNSKY, L. W.: *A Study of the Immediate Postoperative Complications and Mortality in Certain General Surgical Operations. Analysis of 662 Cases at the Philadelphia General Hospital, 1936 to 1939*. Am. J. Surg. n.s. 53: 88-89 (July) 1941.

"This study was undertaken to obtain facts concerning the immediate postoperative complications and mortality in the cases commonly coming to the general surgical department of a large charity hospital. . . . A total of 662 cases was studied. . . . Complications were arbitrarily divided into five groups. The complications which occurred among the cases studied were as follows: 1. Wound Complications: Grades A, B, and C. 2. Abdominal Complications: Nausea and vomiting, postoperative distention, gastric dilatation, subdiaphragmatic abscess, pelvic abscess, peritonitis, fecal impaction. 3. Pulmonary Complications: Acute bronchitis, postoperative atelectasis, postoperative pneumonia, pulmonary infarct, pulmonary embolism. 4. Upper Respiratory Complications: Vincent's angina, acute follicular tonsillitis, upper respiratory infection. 5. All Other Complications: Liver shock, headache, decubitus ulcer, phlebitis, bleeding (wound), conjunctivitis, parotitis, incontinence of urine and feces, cystitis, toxic delirium, icteric toxemia, polyneuritis. . . .

"In considering the high mortality associated with cyclopropane (15.4 per cent) and local novocain (5.85 per cent) it should be mentioned that the poor risk patients received those anesthetics. The incidence of mortality in those patients receiving gas-ether and spinal novocain, the two most commonly used anesthetics, was very close,

1.85 per cent in the former and 2.92 per cent in the latter. There were no actual anesthetic deaths in the series of 662 cases. The mortality was due in each case to the patient's disease and not the anesthetic agent. The incidence of immediate postoperative complications was approximately two times as high in those patients receiving gas-ether as it was in those receiving spinal novocain. . . . Two hundred five patients received inhalation anesthetics and of this number 2.9 per cent died and 26.4 per cent developed postoperative complications. Three hundred thirty-one patients received spinal anesthetics and of this number 2.7 per cent died and 15.4 per cent developed postoperative complications. One hundred thirteen patients received local anesthetics and of this number 5.3 per cent died and 13.3 per cent developed complications. It is interesting to note that the incidence of wound complications was approximately two times as high in those cases getting inhalation anesthesia as it was in those cases getting spinal or local anesthesia. Abdominal complications were about equally divided among those receiving inhalation anesthesia and those receiving spinal anesthesia. In those cases receiving inhalation anesthesia the incidence of respiratory complications was approximately three times as high as in those cases receiving spinal anesthesia. The respiratory complications occurring with inhalation anesthesia were acute bronchitis (4 cases), postoperative atelectasis (10 cases), postoperative pneumonia (3 cases), and pulmonary infarct (2 cases). Two of the patients developing pneumonia eventually died. Respiratory complications occurring in those cases receiving spinal anesthesia were postoperative atelectasis (5 cases), postoperative pneumonia (5 cases) and pulmonary embolism (1 case). Three of the patients developing pneumonia and the

patient developing pulmonary embolism eventually died. . . . In general we were unable to find any variation of significance in the types or incidence of complications in the various age groups. . . . The surgical procedures considered were appendix surgery (240 cases), peptic ulcer surgery (46 cases), hemorrhoid surgery (183 cases), biliary tract surgery (81 cases), and inguinal hernia surgery (112 cases)."

J. C. M. C.

RIESER, CHARLES: *Spinal Anesthesia and Injury to the Nervous Mechanism of Micturition*. J. A. M. A. 117: 98-100 (July 12) 1941.

"Lesions of the cauda equina and conus medullaris of the spinal cord after spinal anesthesia are rather uncommon. As the nerve injury to the spinal cord is usually not extensive, the condition may not be obvious and is frequently overlooked. This damage may be responsible, however, for postanesthetic retention of the urine. If the disorder persists, transurethral resection of a portion of the internal sphincter of the bladder may overcome this unfortunate complication. . . . In view of the paucity of reports on the significance of injury to the lumbosacral portion of the spinal cord following spinal anesthesia and the means of successful attack on this complication, I submit the following report of a case: . . .

"M. C. C., a man aged 26, seen for the first time on Feb. 29, 1940, complained of inability to urinate voluntarily and reported severe constipation since an appendectomy under spinal anesthesia performed on Nov. 22, 1939. Before the operation his urinary and bowel functions had always been entirely normal. Immediately after the operation and for the next week he had to be catheterized at intervals. Subsequently he was treated with an indwelling urethral catheter for forty-