CURRENT COMMENT AND CASE REPORTS

CURRENT COMMENT is a section in ANESTHESIOLOGY in which will appear invited and unsolicited professional and scientific correspondence, abbreviated reports of interesting cases, material of interest to anesthesiologists reprinted from varied sources, brief descriptions of apparatus and appliances, technical suggestions, and short citations of experiences with drugs and methods in anesthesiology. Contributions are urgently solicited. Editorial discretion is reserved in selecting and preparing those published. The author's name or initials will appear with all items included.

POSTOPERATIVE FLACCID PARAPLEGIA: A CASE REPORT

While the literature contains numerous reports concerning neurologic sequelae of spinal anesthesia, reports of such complications following operations under general anesthesia are unusual. The following case is presented to illustrate such an accident.

CASE REPORT

A 66-year-old white man was admitted to the Thoracic Surgical Service with a diagnosis of bronchogenic carcinoma. Physical examination showed moderate suppression of breath sounds over the right upper lobe posteriorly with rhonchi heard over the right base posteriorly. Examination of the left lung was negative. The blood pressure 140 mm. systolic and 80 mm. diastolic; pulse 72 and regular.

Roentgenologic studies were consistent with carcinoma of the lung involving chiefly the right upper lobe with compression and involvement of the bronchus of the right upper lobe. The hemoglobin was 11.8 gm.; leukocytes numbered 9450; and the nonprotein nitrogen was 31 mg. The sputum was negative for tubercle bacilli. Serologic examination was negative. Bronchoscopic aspirations showed no evidence of malignant disease.

An exploratory thoracotomy was performed under nitrous oxide-oxygen-ether orotracheal anesthesia. Premedication consisted of morphine sulfate 10 mg. and atropine sulfate 0.4 mg. one and one-half hours before operation. The surgical procedure progressed uneventfully with blood pressure and pulse remaining within normal limits at all times. Respirations were adequate throughout the operative procedure. Tracheal aspiration and inflation of the lung were carried out at appropriate intervals. A total of 1000 cc. of whole blood was administered. The tumor was found to invade both pleura and pericardium. A biopsy specimen was taken and the chest closed. The growth proved to be a squamous cell carcinoma, grade III, probably of bronchogenic origin.

Following operation the patient was returned to the ward with oropharyngeal oxygen and immediately placed in an oxygen tent. Upon recovering from anesthesia, the patient noted that he was unable to move his legs. Neurologic examination revealed flaccid paraplegia with no demonstrable motor power below the hips, areflexia (tendon and cremasteric) and absent plantar response. Below the groins there was diminished perception to light touch, normal awareness of deep pressure, diminished ability to distinguish between hot and cold, and absent perception of pinprick and pain. Position sense was intact. Vibration sense was absent below the mid-ilia and over the symphysis pubis. There was a small area of hyperesthesia above the groins.

Roentgenologic examination of the spine failed to demonstrate evidence of pathologic fracture or bone destruction. Lumbar puncture revealed increased pressure with normal dynamics. Cell count showed 1 lymphocyte and 1 erythrocyte per cubic millimeter. Protein count was 33 mg.

The patient failed to improve and had not regained the use of his lower extremi-

ties when discharged eight weeks after operation. He died one month after discharge but unfortunately permission for autopsy could not be obtained.

This report illustrates an unusual neurologic complication following exploratory thoracotomy under ether anesthesia. At no time was there any period of mental derangement, cyanosis or other evidence which might lead one to suspect the possibility of damaging hypoxia during the surgical procedure or during emergence from anesthesia. Embolus (question of air entering the circulation by way of the pulmonary vein) or thrombosis of the anterior spinal artery appeared to be the most likely diagnosis. Goodwin and Harmel (1) have described a similar paraplegia in a dog after intra-arterial injection of oxygen into the lower abdominal aorta. They believed that gas embolus had caused necrosis of the spinal cord. In our case we are certain that if such an accident had followed spinal anesthesia, the symptoms would have been falsely ascribed to the local toxic effects of the anesthetic agent. Perhaps some complications which have been attributed to spinal anesthesia may be caused primarily by the operation or may be merely coincidental.

REFERENCE

1. Goodwin, W. E., and Harmel, M. H., Experiments on Intravascular Administration of Oxygen and Helium, Anesth. & Analg. **28**: 255–268 (Sept.–Oct.), 1949.

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ALUMINUM CHART BOARD PROTECTOR FOR INTRAVENOUS INFUSIONS

Frequently it is advantageous for the anesthesiologist to introduce intravenous solutions into a vein of the upper extremity. To prevent displacement of intravenous needles by the surgeon or his assistants, a Wells arm protector (Foregger Co., New York, Catalogue No. 9, 1949, No. 168, Page 79) has been used with the upper extremity placed at the side of the patient. If the needle should become plugged it would be difficult to perform any manipulations to correct this condition, especially when the patient has been draped. The outstretched arm is the preferable position for access to veins. A modification of the Wells arm protector has been made of an almost similar type arm protector which is smaller in size. This is made from an aluminum chart board (fig. 1). This chart board is flexible

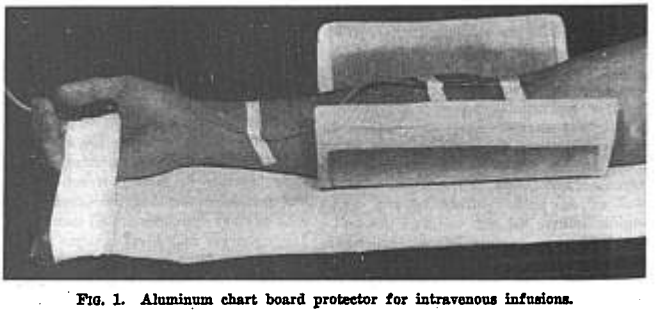

FIG. 1. Aluminum chart board protector for intravenous infusions.