

logic cardiorespiratory sequence. Synchronized artificial respiration associated with artificial cardiac diastole followed by artificial cardiac systole more nearly approaches this normal sequence." 7 references.

J. C. M. C.

KASIN, EDWIN, AND PARKER, SAM: *Momentary Death and Choreoathetosis Following Nitrous Oxide Anesthesia with Recovery.* Arch. Neurol. & Psychiat. 47: 245-253 (Feb.) 1942.

"Many reports have recently appeared describing damage to the brain following the use of nitrous oxide anesthesia, the pathologic changes being found predominantly in the cerebral cortex and the basal ganglia. Most of the patients die during the anesthesia or a short time thereafter. Sudden death, coma, convulsions, decerebrate phenomena, delirium, paralysis, hyperthermia, visual defects, aphasia and amnesia and mental and psychic changes have been reported in various combinations, with partial or complete recovery. The appearance of a clear-cut clinical picture of extrapyramidal disease characterized mainly by choreoathetosis is rare. . . . [In one case] choreoathetosis appeared as the major symptom. . . . Our patient, fortunately, recovered, but we should like to postulate the probable location of the lesions. It would seem that the greatest damage occurred in the lenticular nucleus, but that much of this was reversible and was based on edema, which subsided. The cogwheel rigidities were due to damage of the globus pallidus. The decerebrate rigidity and the signs of involvement of the pyramidal tracts show that the long motor tracts were not spared. The definite mental and psychic changes indicate involvement of the cortex. The reason for the relative rarity of choreoathetosis would seem to be that either most patients do not survive long enough to manifest

the phenomenon or that when they do the damage to the cortex and pyramidal tracts masks the extrapyramidal effects." 17 references.

J. C. M. C.

FABING, H. D.: *Induction of Metrazol Convulsions with the Patient under Nitrous Oxide Anesthesia.* Arch. Neurol. & Psychiat. 47: 223-233 (Feb.) 1942.

"It is common knowledge that apprehension, fear and panic are frequent accompaniments of metrazol shock therapy. . . . An attempt to alleviate this resistiveness arising from severe fear reactions . . . prompted me to induce metrazol convulsions with the patient under anesthesia. . . . The patient is placed in bed in the usual position of spinal hyperextension. The inhalation is begun with the Heidbrink or other suitable apparatus, using a mixture of 88 per cent nitrous oxide and 12 per cent oxygen. When the corneal reflex is lost (and this requires roughly one minute of inhalation) the needle is introduced into the patient's vein. The mask is then removed while the metrazol is injected quickly. At first it was thought advisable to open the direct flow oxygen valve of the apparatus and allow the patient two inhalations of 100 per cent oxygen just before removing the mask, but later observations have shown this to be superfluous and it has been abandoned. . . .

"Three hundred and twenty-three metrazol injections were made into 40 patients under nitrous oxide anesthesia. This method was found to avoid the fear reaction so common in metrazol shock therapy without altering the convulsive pattern or the duration of the convulsion. Little or no increase in the dose of metrazol was necessary to produce convulsions when the patient was under anesthesia. Traumatic complications were minimized with this method (5 per cent), and it is suggested that an-

esthetizing the patient may be an aid in their avoidance. Therapeutic results in cases of melancholia and schizophrenia were comparable to those obtained by orthodox metrazol therapy. The method adds further direct proof for the contention that fear plays no role in metrazol convulsive therapy. The technic is offered as a simple means of improving rapport and diminishing resistiveness in patients undergoing this therapy." 10 references.

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clopropane anesthesia 4.9 per cent and with spinal anesthesia 7.5 per cent. 2. The incidence of postoperative infections of the respiratory tract was unaffected by the age or the sex of the patients, the length of the operative-anesthetic time, the preoperative complications, the kind or the amount of the spinal anesthetic agent, the preanesthetic medication or the blood pressure changes during the anesthesia." 10 references.

J. C. M. C.

LYFORD, JOHN, III: *Postoperative Infections of the Respiratory Tract in Relation to Inhalation and Spinal Anesthesia: A Study of Six Hundred and Thirty-one Cases.* Arch. Surg. 44: 35-40 (Jan.) 1942.

"The purpose of this study was to determine the relative incidence of infections of the respiratory tract after inhalation anesthesia and after spinal anesthesia in patients who had not had preoperative infections of the respiratory tract and who had undergone the same types of abdominal operations. . . . The material consisted of 631 cases in which abdominal operations were performed in the surgical service at Duke Hospital between the years 1930 and 1941. . . . The cases in each operative-anesthetic group were consecutive, and in no case was a combination of inhalation and spinal anesthesia employed. . . . Included were only those cases in which it could be determined definitely from the record that no infection of the respiratory tract existed at the time of operation. . . .

"In this study certain findings appeared significant: 1. Approximately the same proportion of patients without infections of the respiratory tract at the time of operation acquired postoperative infections of the respiratory tract with inhalation and with spinal anesthesia; i.e., the incidence was with ether anesthesia 5.8 per cent, with cy-

LYFORD, JOHN, III: *Preoperative and Postoperative Infections of the Respiratory Tract in Relation to Inhalation and Spinal Anesthesia.* Arch. Surg. 44: 41-43 (Jan.) 1942.

"The purpose of the present study was to determine the relative incidence of acute infections of the respiratory tract after ether, cyclopropane and spinal anesthesia in patients who had been shown to have the kind of low grade, chronic preoperative infections of the respiratory tract not generally considered by surgeons to be contraindications to even elective operations. . . . The material was limited to 120 cases in which abdominal operations . . . were performed on patients who were under the three types of anesthesia and who had been shown to have such chronic preoperative infections of the respiratory tract. . . . Patients having low grade, chronic preoperative infections of the respiratory tract had acute postoperative infections of this tract approximately two and one-half times as frequently after spinal as after inhalation anesthesia; i.e., the incidence was after ether anesthesia 13.5 per cent, after cyclopropane anesthesia 17.5 per cent and after spinal anesthesia 39.5 per cent. The incidence of acute postoperative infections of the respiratory tract after each type of anesthesia in patients with low grade, chronic preoperative infections of this tract was