

"Premedication is essential. . . . When Pentothal and nitrous oxide are used together, a synergistic action is effected. . . . Procaine is infiltrated about the areas where extractions or surgical procedures are to be performed. The value of the local anesthetic is twofold. First, sensory nerve fibers are blocked at their source, and the initial stimulation of the patient by surgical procedure is eliminated. Thus, a light plane of anesthesia, always to be desired, can be used. The time required for postoperative discomfort is minimized. Second, the use of procaine with incorporated epinephrine reduces bleeding, thereby effecting a fairly dry operative field with its attendant advantages for careful operation and maintenance of a patent airway. The maintenance of an adequate airway is of primary importance whenever a general anesthetic is used. . . . Hemorrhage and trismus of the jaws after maxillofacial injuries make the use of a general anesthetic hazardous and difficult. Regional anesthesia, when possible, is ideal, but anatomic difficulties and duration of the operation may preclude its use. Intubation of these patients is a requisite for their management. . . . When intubation can be performed under topical anesthesia the problem is simplified, for anesthesia can be maintained with Pentothal sodium and nitrous oxide-oxygen without further difficulty. . . . The addition of curare to the Pentothal-gas-oxygen combination provides a method for handling the more complicated maxillofacial cases in which maximum relaxation and intubation are essential during maintenance of a light plane of anesthesia."

J. C. M. C.

STILES, J. A.: *Postanesthesia Respiratory Difficulty*. California Med. **68**: 166 (Mar.) 1948.

"A five-hour anesthetic was administered to a 65-year-old man for a left

pneumonectomy. The method used had been endotracheal nitrous oxide, supplemented with intravenous curare and morphine. The operation and anesthetic were both uneventful and the patient left the operating room in good condition, his reflexes present. . . . About ten minutes after leaving the operating room, slight dyspnea was noted, and this became marked in a few minutes; positive pressure on the breathing bag was necessary to effect a good exchange. Within five minutes of the onset of the more marked dyspnea, this method no longer kept the patient oxygenated. The pulse rate began to rise and shortly was over 120 per minute, increasing rapidly. At the same time, cyanosis became evident. At this point the patient lost consciousness and reintubation was performed, whereupon the cyanosis disappeared and the pulse rate decreased slightly. Even by this means, respiratory exchange was difficult and inadequate. To percussion the left chest showed increased resonance and the heart was definitely shifted to the right. A large needle was inserted in the left pleural cavity with almost immediate return of spontaneous respiration and further decrease in pulse rate. The needle was left in place for 24 hours, connected to a rubber tube the end of which was left under water seal. Recovery was uneventful."

J. C. M. C.

WATERS, R. M.: *Drugs and Methods for the "Occasional" Anesthetists*. Postgraduate Medicine **3**: 77-84 (Feb.) 1948.

"I hope to defend the proposition that the four agents nitrous oxide, ether, chloroform and procaine, with relatively simple apparatus, in the hands of any conscientious and competent physician, can provide safe, pleasant and adequate anesthesia for the majority of the operations in modern

surgical practice. . . . Effects of several different sedative and anesthetic drugs, acting upon one patient simultaneously, require a maximum of skill, experience, and knowledge in management if safety is preserved. It is for this reason that I suggest to those who must administer the occasional anesthetic—the student, the intern, the general practitioner, the young surgeon, and the embryo specialist—that each ought to begin by learning about a minimum number of drugs and methods. After mastery of these, he may wisely proceed to more complex efforts. . . . Every full-time anesthetist ought to be willing to teach the simple fundamentals to other physicians. . . . Familiarity with the use of oxygen in a simple mask and breathing bag is essential. . . . Opiates, barbiturates, and tribromethanol (avertin) being respiratory depressants had better be avoided. . . . Ethyl chloride, ethylene, cyclopropane, vinyl ether, trichlorethylene, and the newer non-volatile agents vary from the older ones in potency and pharmacologic characteristics. Differences in technical details of their administration tend to confuse the less experienced administrator. They possess no outstanding advantages which skill with nitrous oxide, ether, chloroform, and procaine cannot match. . . . In my estimation, the dangers of nitrous oxide have been greatly exaggerated in recent years. They have certainly been enhanced by the injudicious use of depressant drugs as adjuvants. . . . Ether, skillfully administered, can be made to produce satisfactory anesthesia for nearly all operations during which a source of ignition is not present. Respiratory arrest during either nitrous oxide or ether anesthesia is rarely serious unless there is simultaneous scarcity of oxygen in the patient's tissues. . . . In the absence of nitrous oxide, chloroform affords a means, agreeable to the

patient and convenient to the anesthetist, of inducing unconsciousness for a brief operation or for the induction preceding ether. Safeguards during the administration of chloroform are, first, patience and deliberation in increasing the vapor-tension; second, constant palpation of the patient's pulse, and third, addition of oxygen to the respired atmosphere. . . .

"Procaine is well established as a local anesthetic. Its dangers and disadvantages are more thoroughly understood than those of any other agent. Procaine, therefore, is recommended as the occasional anesthetist's local agent. . . . If [the spinal] method is attempted by the beginner, procaine is probably the safest drug. . . . Spinal administrations tempt the inexperienced because they are so easy. This very simplicity, however, as with the intravenous and other administration of non-volatile drugs, may be a source of danger."

J. C. M. C.

BRODY, JOHN: *Pentothal, Nitrous Oxygen, Curare Anesthesia*. Connecticut State M. J. 12: 116-118 (Feb.) 1948.

"In 1945, I reported the details and results of fifty clinical administrations of anesthesia using curare in combination with sodium pentothal, nitrous oxide and oxygen. . . . Since then I have continued to make use of this type of balanced anesthesia. . . . We have administered over 1,350 anesthetics with sodium pentothal, nitrous oxide oxygen, and curare. I have critically conducted and followed up 250 of my own cases. We have used intocostin and d-tubocurarine chloride with no qualitative or quantitative difference noted. No attempt has been made to prevent the mixing of the curare with the pentothal. We do not elect to use this technique for certain intestinal operations and in the very young patient.