
"The two most common complications of thiopental sodium (Pentothal) anesthesia mentioned in the literature are laryngospasm and respiratory depression. . . . There is no doubt that respiratory depression is far more disconoeerting than laryngospasm. The cause is seldom evident; the treatment is rarely routine; the outcome is never sure. Report of case—The patient, a white male, aged 32, was admitted to the University of the Witwatersrand Dental Hospital for treatment of a painful and swollen lower jaw. . . . On palpation of the swollen area, as well as on percussion of the lower left cuspid and bicuspid teeth, pain was elicited. Unnatural mandibular movement was apparent. These factors led to a diagnosis of mandibular fracture in the region of the left cuspid tooth. . . . The immediate plan of treatment was reduction and immobilization of the fracture under general anesthesia. On January 18, the patient was given preoperative medication of 1/3 grain Omnopon and 1/50 grain atropine by subcutaneous injection an hour before the operation. He was conscious and appeared normal when admitted to the operating room at 10:30 a.m. A 5 per cent solution of thiopental sodium was slowly injected into the median cubital vein. The total volume of solution injected was 7.5 cc. After 15 to 20 seconds, respiration ceased and within two or three minutes the patient became cyanosed. Oxygen under pressure was administered immediately from the Boyle's anesthetic apparatus (without carbon dioxide absorber attachment). Cyanosis rapidly disappeared. Six minutes after respiration had ceased the patient's pulse was full and the rate 160 per minute. . . .

"The pupils were normal in size and reacted to light. As there was no sign of recovery a mixture of 8 per cent carbon dioxide and 92 per cent oxygen was administered, but without any apparent effect. At 10:50 a.m. an intratracheal tube was passed through the nose, and the pharynx was packed off. Artificial respiration was continued by alternately squeezing the rebreathing bag with the respiratory valve closed and applying pressure to the abdomen with the respiratory valve open. At 11:00 a.m. 2 cc. of nikethamide was injected intravenously, without visible response. Twenty minutes later, and again after 15 minutes, 3 cc. of picrotoxin was administered intravenously. There was no sign of respiratory recovery. Pulse, eye signs and blood pressure remained unchanged. Lumbar puncture revealed no increase in pressure in the spinal fluid. At 12:30 p.m. the patient was removed from the operating room and transferred to an iron lung. . . . At 2:00 p.m. twitchings of the calf muscles were noticed. After a few minutes these twitchings took on the character of convulsive movements, accompanied, however, by movements of the head, arms and legs that were definitely of a voluntary nature. This led to the assumption that the respiratory mechanism might also be functioning. The iron lung was, therefore, stopped—at 2:15 p.m., which was almost five hours after the initial cessation of respiration. The surmise proved to be correct. The patient had resumed breathing, but he appeared bewildered and reacted violently. The intratracheal tube was withdrawn and the patient was removed from the iron lung. He was extremely difficult to handle and had to be strapped to the bed. . . .

"Oxygen was administered with difficulty, but immediately improved his color as well as his unruliness. After a short while he asked for water.
He was allowed a cupful, and was urged to control himself. This he did, and gradually settled down into a deep sleep. However no sooner was the oxygen withdrawn than he rapidly became cyanosed. Respiratory movements were slowly becoming more feeble. At 5:00 p.m. respiration was so feeble that even in an atmosphere of 100 per cent oxygen the patient's color was grayish, and by this time his sleep appeared to have merged into a state of coma. At 5:20 p.m. he was again transferred to the iron lung. In the process he became deeply cyanosed. A pulse beat could be palpated only with difficulty. An intratracheal tube was immediately passed and oxygen was administered under pressure. Color as well as pulse improved, and returned to normal as soon as the iron lung was started. By 7:00 p.m. the patient was conscious. He answered to his name and scrutinized the persons around him. At 7:30 p.m. the iron lung broke down. The patient, however, was conscious, and his breathing was better than it had been on the occasion of his previous temporary recovery; in addition he was much more cooperative. He was transferred by ambulance to the Johannesburg General Hospital, where another iron lung was available. By 10:45 p.m., more than 12 hours after the initial cessation of respiration, the patient was able to maintain a good color without the aid of the iron lung and pure oxygen. He slept reasonably well from 11:30 p.m. until 7:00 a.m. the next morning. By 7:30 a.m. he had recovered completely, and asked for food. He had no recollection of the previous day's experience. . . . At the time of writing there is no evidence of cerebral damage having followed this disconcerting episode."

A. A.

**ABSTRACTS**


"Dental care for many of the emotionally disturbed, physically handicapped or normal apprehensive patients has always been a problem to the dentist. . . . The minimum staff should consist of an anesthetist, graduate nurse and operator whose duties are independently functional. . . . The patients come to the office premedicated 35 to 40 minutes before appointment. Induction in youngsters is with nitrous oxide and oxygen using the face mask. As soon as the patient shows signs of approaching third stage anesthesia, the nitrous oxide (80-20) mixture is supplemented with vinethene. When mid first plane third stage anesthesia is attained, the vinethene is shut off and ether is started by drip into the rebreathing bag and canister. . . . When the anesthetic for an adult patient is to be a combination of intravenous pentothal sodium and inhalation nitrous oxide and oxygen, similar preparation and premedication as for a purely inhalation anesthetic is given."

A. A.


"One hundred and fifty patients were studied under spinal anesthesia. Fifty were given pontocaine only for spinal anesthesia as controls. Fifty were given pontocaine spinal anesthesia to which levophed had been added and fifty were given novocaain spinal to which levophed had been added in order to study its prolonging effect. It is possible to increase the usual length of pontocaine or novocaain anes-