

pression that all operations require the services of a physician anesthetist. All of us realize that nurses have administered the large majority of anesthetics that have been given in Virginia and they have given them extremely well. The patient in good condition who has an operation of average magnitude will do about as well with either type of anesthetist. But the poor risk patients and especially those who are subjected to the formidable procedures which are becoming more and more frequent on our operative schedules are the ones who should have the benefit of a physician anesthetist. Nurses do not relish the responsibility of handling this type of case and it is as unfair to them as it is to the patient to ask them to do so. One physician anesthetist in a hospital of moderate size is adequate to care for the more difficult cases and he is also available to help in any emergency which may arise during the course of other operations in the same hospital. Nurse anesthetists appear to welcome the moral support afforded by a physician anesthetist in the same building. . . .

"I would again like to point out that Virginia has lagged behind the country at large in failing to utilize the services now offered by trained medical anesthetists. In order to correct this we need centers for the training of physicians in this specialty and this function logically should be assumed by the University of Virginia and the Medical College of Virginia. If such a program is adopted, these teaching hospitals at once will receive the benefit of improved anesthesia. the hospitals throughout Virginia will soon have a supply of anesthesiologists available and, most important of all, our patients will be operated upon under the most favorable conditions it is within our power to provide." 2 references.

J. C. M. C.

WYNGAARDEN, J. B.; WOODS, L. A., AND SEEVERS, M. H.: *Plasma Levels and Urinary Excretion of Injected Myanesin in Dogs*. Proc. Soc. Exper. Biol. & Med. 66: 256-260 (Oct.) 1947.

"The recent publications of Berger and Bradley describing a new synthetic curarizing agent, α - β -dihydroxy- γ -(2-methylphenoxy)-propane (myanesin), and the initial clinical report by Mallinson of its use as a substitute for curare in 118 cases, are of potential interest in the field of anesthesia. The brevity of action of myanesin aroused our interest in its physiological disposition, and it was considered desirable to study blood levels and urinary excretion. . . . The method . . . is dependent upon the nitration of myanesin in aqueous solution, and the development of a strong yellow-green color when made alkaline with sodium hydroxide. . . .

"Preliminary observations would seem to indicate that myanesin is conjugated with glucuronic acid, as least in part. . . . The rapid decay curve of myanesin in dog plasma explains the brevity of its pharmacological action. In the dog, from 0.1 to 2.0 per cent of the administered dose is excreted as free myanesin; from 32 to 42 per cent of the administered dose is excreted as conjugated myanesin in twenty-four hours." 7 references.

J. C. M. C.

WILSON, H. B. AND GORDON, H. E.: *Myanesin as an Aid to Anaesthesia in Children*. The Lancet 1: 367-368 (Mar. 6) 1948.

"At the Royal Aberdeen Hospital for Sick Children the properties of α : B-dihydroxy-Y-(2-methylphenoxy)-propane ('Myanesin') were investigated primarily to determine if it is effective and if it has any harmful effect on the patient. It was decided in the first place to use myanesin on patients in

whom the variables could be adequately controlled and its true value assessed.

"All the cases in this series, numbering about 60, were appendectomies in children aged three to twelve years premedicated with atropine gr. $\frac{1}{100}$ three quarters of an hour before operation. The patients were anaesthetized with nitrous oxide, oxygen, and ether and were intubated orally with the largest Magill tube which could conveniently be passed. This was lubricated with 10 per cent nupercaine paste applied sparingly. The anaesthesia was lightened and stabilised in lower plane 1. As would be expected, at this level the abdominal muscles were not adequately relaxed; and, when the surgeon reached the peritoneum, myanesin was slowly injected intravenously. The dose of myanesin was based on the age of the child by the formula: $\frac{\text{Age}}{2} + 1$ ml. Thus a child aged eight years received 5 ml. This system of dosage, though admittedly not so scientific as one based on body-weight, was considered satisfactory in view of the wide safety margin of myanesin.

RESULTS

"*Relaxation.* In most cases relaxation of the abdominal muscles came on within a minute and lasted for seven to fifteen minutes. . . . A further injection of myanesin, usually about half the initial dose, again relaxed the muscles, this time for a longer period up to thirty minutes. In 3 cases relaxation was not complete with the standard dosage but slight deepening of the anaesthesia brought on excellent relaxation. . . .

"*Side Effects.* To detect any deleterious effects, all cases were carefully charted on Nosworthy record cards. Analysis of these did not show any significant change in pulse rate or in blood pressure, and the only change

noted in respiration was a response to stimulation from the field of operation, which confirmed the light level of anaesthesia. Despite lowered tone of the abdominal muscles there appeared to be no diminution of intercostal or diaphragmatic activity and no alteration in the character of the respiration.

"*Urine* was examined routinely both before and after operation, and no abnormal constituents were detected. Urea-clearance tests, made to determine if there was any interference with normal renal function, showed no deviation from normal.

"*Postoperative Complications.* None of the children had any postoperative complications attributable to the anaesthetic except one who had a painless non-inflammatory venous thrombosis extending from the antecubital fossa to the upper arm but not involving the veins in the axilla. In this case myanesin had been more rapidly injected than usual. . . .

"In view of a somewhat alarming report of excessive hemolysis combined with hemoglobinuria in a case in which myanesin had been used, tests were carried out in which all precautions against artificial hemolysis were taken. . . . In no case was there any hemolysis before anaesthesia. After the patient was anaesthetized, very slight hemolysis was noted with a slight increase in fragility of the red cells. When in addition myanesin was used, there was a considerable increase in hemolysis and a definite increase in fragility of the red cells. . . . No hemoglobin was detected in the urine postoperatively either by naked eye or spectroscopically. . . . It was felt that the degree of hemolysis was so small that the further use of myanesin was justified. Nevertheless the factors causing hemolysis should certainly be investigated further.

"A further 40 cases have since been completed in which myanesin was used

as the relaxing agent in conjunction with soluble thiopentone, nitrous oxide, oxygen, and in several cases cyclopropane. In these cases relaxation was undoubtedly obtained at a lighter level of anesthesia than would have been possible with these agents alone. When the thiopentone, nitrous oxide, oxygen technic was used, myanesin increased the duration of effect of the anesthetic without deepening it. . . . Irrespective of the anesthetic agent chosen, the incidence of postoperative vomiting was lower than where myanesin had not been used.

"Even in the very young the veins in the antecubital fossa, though small, are remarkably easy of access. Very often veins on the dorsum of the hand, wrist and round the internal malleolus are of surprisingly large calibre. . . . Particular care must be taken in children to avoid intra-arterial injection." No references.

E. J. G.

BROWN, RAY: *Osteomyelitis of the Spine Secondary to Paravertebral Block*. U. S. Army Med. Bull. 8: 391-396 (May) 1948.

Two cases of vertebral osteomyelitis secondary to lumbar paravertebral novocain block are presented. To the author's knowledge, the two cases reported here are the first cases of osteomyelitis of the spine secondary to lumbar paravertebral blocks.

Case 1 received a left lumbar sympathetic block in the region of the ganglion of the third lumbar nerve, and three hours later developed a severe pain in the lumbar region. Spasm of the back muscles and back pain persisted and twenty days later his temperature suddenly rose to 103 F., he had a chill, and he vomited. The patient responded to penicillin therapy but maintained a poker-like rigidity of the back with marked spasticity of the erector spinae muscles. Fourteen

days later x-rays of the lumbar spine showed irregular destruction of the adjacent portions of the bodies of the second and third lumbar vertebrae. The patient was continued on penicillin and later immobilized in a plaster cast.

Case 2 received eight lumbar sympathetic blocks because of shell fragment wounds. One of the injections caused him intense pain. Following three months of orthopedic surgery, x-rays of the lumbar spine showed narrowing of the first lumbar interspace with cavitation of the body of the first lumbar vertebra.

In both cases bony destruction with evidences of new bone formation occurred early. Spontaneous fusion occurred in five months in case 1 and in ten months in case 2. 5 references.

J. B. G.

SLOCUM, H. C., AND ALLEN, C. R.: *Anesthesia Services for The Texas City Disaster Patients*. South. M. J. 41: 344-346 (Apr.) 1948.

"The Texas City disaster occurred at 9:12 a.m., on April 16, 1947. Within half an hour the first casualties were brought to the hospitals of Galveston.

"As the patients were admitted (The John Sealy and affiliated hospitals of the University of Texas Medical Branch), they were classified into three groups, namely: orthopedic, plastic and general surgery, according to the type of injury. Each patient went through a general shock ward where preliminary treatment was given for shock, hemorrhage, and infection. In this ward the most seriously wounded were listed for immediate surgery, if indicated, and the patient's condition warranted. All patients were permitted to recover from shock unless disruption of a large blood vessel required immediate attention.

"Blood, plasma, fluids, oxygen and chemotherapy were used freely. An intravenous infusion of some type was