

lowing preliminary medication is administered: Pentobarbital sodium 0.1 Gm. the night before operation and 0.2 Gm. an hour and one-half prior to operation, supplemented by morphine sulfate 0.010 Gm. and scopolamine hydrobromine 0.0004 Gm. one hour later. The technique for local pudendal and perineal block anesthesia is essentially that described by Urnes. . . . We have attempted to evaluate the results of the anesthesia in the following manner: Grade 1, an entirely satisfactory result. Grade 2, a partially satisfactory result, the procaine affording satisfactory relief of pain for at least one hour but requiring an inhalation anesthetic thereafter. Grade 3, a failure. We obtained Grade 1 anesthesia in 82.8 per cent of the 177 major vaginal operations, 6.7 per cent Grade 2 results, and 10.1 per cent Grade 3, or failures. . . . In 23 abdominal operations, we were able to obtain similar results to those obtained in vaginal operations, with 78.3 per cent, Grade 1, 13 per cent Grade 2, and 8.7 per cent failures. In both series, not a single instance of sensitivity to procaine was encountered. . . . There were three deaths in the entire series. Of these, only one could be attributed to the anesthetic, which was in this particular case, gas-oxygen-ether. . . . The morbidity rate in the group of patients operated upon under local anesthesia was 24.5 per cent, as compared with 36.1 per cent for those patients receiving general anesthesia. . . . The number of patients developing postoperative shock was substantially decreased by local anesthesia, 7.5 per cent developing shock as compared with 12.6 per cent in the general group. . . . Respiratory disease occurred postoperatively in 4.5 per cent of those patients receiving local as compared with 3.2 per cent of those receiving general anesthesia. The incidence of respiratory disease preoperatively, however, was 12.5 per cent in

the former but only 2.5 per cent in the latter. . . . Through the medium of local anesthesia, we have been able to reduce the risk of operative complications in aged individuals. . . . Urinary tract disease occurred postoperatively in 13.0 per cent of patients receiving procaine anesthesia as against 8.7 per cent of those receiving general anesthesia. However, 3.5 per cent of the local group had urinary tract pathology prior to operation, but none of the patients operated upon under general anesthesia was so affected. . . .

"Any type of gynecologic vaginal operation can be satisfactorily performed under perineal-pudendal block local anesthesia with reduction of the mortality and morbidity. Gynecologic abdominal surgery performed under local anesthesia, while less satisfactory in general, may be used advantageously in selected cases. Local anesthesia by its safety has extended the scope of surgery and is the method of choice for anesthesia in the elderly woman." 10 references.

J. C. M. C.

SHOOR, MERVYN: *Paraldehyde Poisoning: Report of a Fatality*. J. A. M. A. 117: 1534-1535 (Nov. 1) 1941.

"Death from paraldehyde poisoning is rare. . . . The case reported here is unique in that only 12 cc. of paraldehyde rectally resulted in fatal poisoning. This is the smallest dose of the drug on record to cause death. . . . Mrs. J. S., a primipara aged 21, was admitted to the private service of Mount Zion Hospital at 12:05 a.m. on July 3, 1940. Her past history had been singularly free of disease. . . . Her weight was 196 pounds (89 Kg.), the temperature 37 C. (98.6 F.), pulse rate 80 and respiratory rate 18 a minute. The heart was normal in size; the sounds were regular and of good quality. There were no murmurs. The lungs were free of abnormalities by per-

ussion and auscultation. The blood pressure was 130 systolic and 90 diastolic. Examination revealed that the baby was in the right occipito-posterior position, that the head was floating and that there was no cervical dilatation. Urinalysis revealed albuminuria (++) degree), and from 8 to 10 red blood cells per high dry field microscopically. The hemoglobin was 9.2 Gm. per hundred cubic centimeters of blood; red blood cells numbered 3,480,000 and the white blood cells 7,350 with a normal distribution. . . .

"Because the patient was a Christian scientist she refused sedation, but on July 4 she acquiesced and, accordingly, at 9:30 a.m. 12 cc. of paraldehyde in 6 cc. of benzyl alcohol and 30 cc. of physiologic solution of sodium chloride were administered rectally. . . . Analgesia was excellent. The patient slept between contractions and became somewhat restless when they occurred. She was taken to the delivery room at 1 p.m. At that time, the anesthetist observed the pulse to be 148 a minute and irregular. The respirations were 48 a minute, deep and labored; the nail beds and ears were cyanotic. She did not seem to respond to the ordinary physical stimuli. Low forceps (Tucker-MacLean) were applied under light ether anesthesia and a living baby girl weighing 9 pounds, 7 ounces (4,280 Gm.) was delivered from the right occipito-posterior position. A second degree midline episiotomy was performed and repaired. A proprietary uterine stimulant $\frac{1}{320}$ grain (0.2 mg.) was administered intravenously. She was returned to her room at 2:30, still stuporous, with the pulse regular at 130; respirations remained rapid. . . . One cc. of metrazol was administered intravenously and the patient was placed in an oxygen tent. . . . A total of 20 cc. of nikethamide was given intravenously in divided doses over a period of five and

one-half hours, without benefit. An intravenous infusion of dextrose was started. Despite these supportive measures pulmonary edema gradually ensued, and at 5:30 a.m. on July 5 a generalized convulsion occurred. Carpopedal spasm and a positive Chvostek sign were elicited. The patient died at 7 o'clock some eighteen hours after delivery and about twenty-one and one-half hours after administration of the paraldehyde.

"The baby on admission to the nursery weighed 9 pounds 7 ounces. She was cold to the touch and her breathing was shallow. She had repeated bouts of cyanosis followed by convulsions, and despite inhalations of carbon dioxide and oxygen she died thirty-one hours after delivery. An autopsy on the body of the mother, which was performed by the coroner's office of San Francisco twelve hours after death, revealed the following conditions: 'Acute pulmonary congestion and edema, subpleural and subpericardial hemorrhages consistent with asphyxia, pericarditis and adrenal apoplexy. Negative for poisons.' The toxicologist reported only traces of paraldehyde in the blood, urine and gastric contents. An autopsy was not done on the body of the baby." 14 references.

J. C. M. C.

BITTER, J. S., AND KRAMER, S. E.:
Modern Urologic Pharmacology.
 Urol. & Cutan. Rev. 45: 695-700
 (Nov.) 1941.

"We, as urologists, are ever interested in newer methods and drugs used as anesthetic agents. The margin of safety in our older patients is particularly small. Spinal anesthesia, using 50 milligrams of novocaine or its equivalent under any proprietary name one likes best has proved exceptionally satisfactory. One death, in a very poor cardiac risk, over a period of ten years in our experience would almost ex-