stetric practice. . . . Before we can completely accept this new remedy, it will have to be tried by competent observers in many clinics."

J. C. M. C.

BRENTNALL, C. P.: *Local Anaesthesia in Vulval and Vaginal Surgery.* J. Obst. & Gynaec. Brit. Emp. **50**: 226–232 (June) 1943.

"The term 'local anaesthesia' is used in its widest sense, and includes the procedures sometimes referred to as 'regional anaesthesia,' 'field block,' and 'nerve block.' The anaesthetic used has been Novutox, a proprietary preparation containing a solution of Procaine with epinephrine in Ringer's solution, and also quinine derivatives and and thymol. . . . It has been used in various dilutions from ½ to 1 per cent of Procaine with almost equal success. . . . The total amount injected in this series has rarely exceeded 40 cc. in a single operation. . . . It is obvious that the technique of local anaesthesia for gynaecological surgery of the vulva and vagina will vary considerably from case to case. . . . If a comparatively small area (such as the labia) receives sensory nerve fibers from a number of nerves, it is both easier and more successful to infiltrate the tissues with the anaesthetic than to attempt a block of each individual nerve. But when a large area (such as the vagina) receives its nerve supply from a single nerve or nerve plexus, it is preferable to block the nerve rather than infiltrate the tissue. . . . The question of premedication of patients about to undergo operation is debatable. . . . Morphine, together with scopolamine, has given the best results. . . . The contra-indications to the use of local anaesthesia may be classified under three headings: 1. Acute inflammation. . . . 2. Anatomical obstruction to the site of injection. . . . 3. Pathological obstruction to the site of injection. . . . With the exception of those exhibiting one or other of the above contra-indications, a small and almost negligible list, it may be said that any vulval or vaginal operation may be completed with success under local anaesthesia with one exception, namely, excision of the vulva. It has been found that excision of tissue down to the fascia covering the pubes and deep to the clitoris is painful, and success is not claimed. . . . Although I have used this technique for every vulval and vaginal operation that is included in my practice of gynaecology, only once has it been necessary to administer a general anaesthetic." 5 references.

J. C. M. C.

HOENIGSBERGER, F.: *Collapse under Pentothal Sodium Anaesthesia.* Lancet **2**: 14 (July 3), 1943.

"A miner, aged 40, of spare build, was admitted in the early hours of the morning with a compound fracture of the tibia and fibula and, in addition, a fracture of the neck of the femur. . . . A smooth induction was obtained with 3 c.cm. of a 5% solution of pentothal sodium. After a short pause, a further 5 c.cm. of the same solution was injected more slowly and it was found that narcosis was still fairly light, the respiratory excursions being good. A further 4 c.cm. was injected slowly after a short interval, while the operation was being begun. At this stage, 10 minutes after the start of the injection, pallor appeared suddenly and respiration ceased abruptly. The pulse was found to be very weak, fast and irregular in time. Artificial respiration with pure oxygen by means of a rebreathing bag was started without delay and satisfactory chest expansion was obtained through an oral airway. The pupils were contracted at this stage. After 3 minutes there was no spontaneous attempt at respiration and

the pulse became barely perceptible. An intravenous injection of 6 c.cm. of nikethamide was now given without apparent effect. Five minutes after the appearance of the first alarming signs, the pulse was quite imperceptible and no heart sounds were audible to auscultation. Pallor without cyanosis persisted and the pupils were now dilated. At this stage 1 c.cm. of 1:1,000 adrenaline was injected by the surgeon through the fourth left intercostal space, as near to the border of the sternum as possible. This produced no apparent effect except for a few generalized muscular twitchings. After an interval of one minute, a similar injection was given through the third left intercostal space, which, preceded by a few powerful generalized muscular contractions, was followed at once by reappearance of the radial pulse and heart sounds to auscultation (7 minutes after the first appearance of untoward signs). The pulse was irregular but quite strong and was accompanied by the appearance of a pink colour in the patient's face. Spontaneous respiration restarted at the same time, until which time effective artificial respiration had been continued without interruption. The operation was then resumed and completed in a further 40 minutes, during which time pure oxygen was administered continuously. . . .

"He developed a dry gangrene of the leg which had been the site of the compound fracture. This leg was amputated above the knee 24 days after the first operation. On this occasion a unilateral subarachnoid leg-block was employed, accomplished by 110 mg. of a 10% solution of procaine, with a premedication of morphine, gr. ⅙, and hyoscine gr. $\frac{1}{150}$, 1½ hours before operation. There was no appreciable fall of blood-pressure and the patient remained in an excellent condition throughout and after the operation. Dissection of the amputated leg revealed a thrombosis of the posterior tibial artery in its entire length. On questioning, the patient gave a history of having 'collapsed' under a previous anaesthetic, but he could give no particulars."

J. C. M. C.

TYSON, R. M.: *Effects of Analgesia and Anesthesia on Prematures.* Pennsylvania M. J. 46: 1051–1053 (July) 1943.

"It can be safely stated that the greatest hazard to prematures is prematurity itself. Outside of this, it has been demonstrated that anoxemia is the primary problem with premature babies, although hard to prove pathologically. . . . One of the physiologic effects of morphine sulfate administered during labor is retardation of the mother's respiratory rate, and the same reaction has been noticed to occur in the infant, particularly if the drug is given less than four hours before birth. . . . The same reaction is reported for pentobarbital, paralydehyde, and chloral hydrate, as well as for anesthetics of the volatile type such as ether and nitrous oxide, unless oxygen makes up at least 30 per cent of the mixture. Cyclopropane appears to be able to produce full surgical anesthesia of the mother without interrupting fetal respirations and, at the same time, permits of a large proportion of oxygen (70 per cent) administration. . . . At the Philadelphia Lying-In-Hospital, over an eleven-year period, 22,526 full-term babies were delivered with a mortality of 1.9 per cent and 2,142 premature infants with a mortality of 37.8 per cent. In the latter group, it was observed that birth weight was the deciding factor in survival. . . . Our conclusion has been that morphine used as an analgesic during labor is a dangerous procedure from the standpoint of survival of the premature infant.