

less and non-depressant to the baby, and being a new method of treatment of the dreaded eclampsia of pregnancy. One of the principal objections to its usage is the fact that the obstetrician has to be near the patient the entire time of labor, and this is not possible at all in these wartimes, even if it were in peace times. Undoubtedly the method will be worked out so that the physician will not have to remain with the patient continuously and this method of obstetric analgesia will assume its place in the obstetric analgesic procedures used in hospitals."

J. C. M. C.

EBNER, P. G.: *Use of Continuous Spinal Anaesthesia for Analgesia in Labor and during Delivery: A Preliminary Report.* J. South Carolina M. A. 40: 224-227 (Nov.) 1944.

"It was necessity that prompted the author to investigate the potentialities of continuous spinal for obstetrical analgesia in labor and during delivery. For the author, being unable to obtain training in the technique of continuous caudal analgesia, yet still wishing to make the method available to obstetrical patients under his care, avidly studied the literature on continuous caudal analgesia, and then proceeded cautiously to employ it on a series of five cases, with but partial success in one, and complete failure in the other four. Discouraged by these failures . . . the author mused on the potentialities of continuous spinal anaesthesia. . . . Accordingly, on January 12, 1944, continuous spinal analgesia was started on a primigravid patient during the last part of the first stage of labor. . . . Subsequent to this case and up to the present some fifteen patients have had the benefits of continuous spinal analgesia started at the latter part of first stage of labor. . . . The shortest period of time any of the fifteen patients were under the influence of continuous

spinal analgesia was 1 hour—the first case, while the longest period of time of administration was 3 hours and 30 minutes in the case of an ROP diagnosed as such with cervix dilated to 4 cms. prior to instigating the analgesia. The average length of time for all cases was 2½ hours. The principle of using this form of analgesia only in the late first stage—when pains are at least 5 minutes apart and cervix 4-5 cms. dilated in primiparas with head engaged—or when the termination of labor in the opinion of the operator is not more than 4 hours distant—was decided upon by the author as a precautionary measure in that these early cases represent an introductory period of experimentation. . . . The largest amount of procain-HCl given in any one case was 300 mgms. over a period of 2 hours and 45 minutes in the case of an ROP, while the smallest amount was 125 mgms. over a period of 2 hours and 12 minutes. The incidence of episiotomies was no greater nor less than has been our experience with inhalation anaesthesia. There were no still-births, neo-natal deaths, nor maternal deaths. The series is too small to decide whether this type of analgesia shortens labor, but in any event the author feels that labor was not prolonged. . . . Since this paper was written, twenty additional patients have been delivered by the same technique." 9 references.

J. C. M. C.

MCGOOGAN, L. S.: *Local Anesthesia in Caesarean Section.* Nebraska M. J. 29: 377-378 (Dec.) 1944.

"The operation of Caesarean section to be successful requires an operating team of anesthetist, surgeon, scrub nurses, floor nurses and a physician to care for the baby. In many instances in the smaller rural hospitals a competent anesthetist cannot be obtained, sufficient nursing help is unavailable,

and a physician to resuscitate the baby cannot be found. . . . Even under the best of circumstances many instances of asphyxia of the baby occur. . . . Local anesthesia does not affect the baby and if the operation could be done under local anesthesia it would have another advantage. The surgeon can act as his own anesthetist. . . . Two years ago I began to do Caesarean sections under local anesthesia. To date 37 cases have been done. If possible, nembutal gr. III are given two hours before the operation, scopolamine gr. $\frac{1}{4}$ to $\frac{1}{50}$ one hour before operation, and morphine sulfate gr. $\frac{1}{6}$ at the time the local infiltration is begun. The bladder is emptied per catheter. . . .

"The drug used was one per cent novocaine with three drops of 1-1000 adrenalin hydrochloride added to each ounce of novocaine. The amount used varied from 40 cc. to 110 cc., the average being 60 cc. . . . The success of the local anesthesia depends upon careful technique—the injection being done as follows: 1. A series of contiguous intra-dermal wheals the entire length of the proposed incision. 2. Radial block of the tissues between the skin and anterior rectus sheath, the injection carried to the edge of the rectus muscle. 3. Radial blocking of the tissues between the anterior and posterior rectus sheaths. At the lower angle of the wound, if it is a mid-line one, anesthesia is frequently incomplete, unless great care is exercised in placing a sufficient amount of novocaine into the pyramidalis muscle and in the region of the underlying transversalis fascia. 4. Injection of the peritoneum of the anterior wall, if the previous radial blocking has not given complete anesthesia. 5. If a classical section is to be done, the uterus does not need to be anesthetized. If a low cervical section is to be done 10 cc. of solution are injected beneath the bladder peritoneum about 1 cm. above the

bladder, 5 cc. being placed on each side of the mid-line in such a way that the length of the proposed peritoneal incision is anesthetized. This also facilitates the dissection of the bladder flap. Pressure on the wheals produced will disperse the fluid over a larger area. 6. When using retractors, or sponges, gentleness is imperative or pain may be easily produced in unaffected areas, and pressure sense creates discomfort. 7. Pituitrin 1 cc. is given intramuscularly as the uterus is incised and Ergotrate gr. $\frac{1}{32}$, as the baby is delivered. The uterus contracts promptly with quick separation of the placenta and a moderate amount of bleeding. Local anesthesia does not interfere with contractions of the uterus. 8. Supplemental anesthesia was employed in only one case. Delivery of the child was accomplished with local anesthesia. It was then found that the placenta could not be separated as it was a placenta accreta. Nitrous oxide anesthesia was used for the hysterectomy. . . . The patients have very little post operative discomfort and are able to take fluids and food on return from surgery."

J. C. M. C.

FREIHEIT, J. M., AND MAGNANO, JOSEPH: *Anesthesia in Cesarean Section with Special Reference to the Prevention of Atelectasis of the Newborn*. Connecticut State M. J. 8: 748-756 (Nov.) 1944.

"Cesarean section is usually performed today in the interest of the infant in order to give it a better chance for life than it would have if delivered through the birth canal. . . . In the past twelve years, out of 311 cesarean operations 23 babies at autopsy were apparently perfectly formed and showed death due to congenital atelectasis. . . . A great many theories have been given to explain the production of atelectasis—intrauterine respira-