

method, especially early in one's experience. The optimum duration of caudal analgesia in this series was seven hours or less. For reasons which I do not understand I was unable consistently to maintain complete relief in those patients requiring analgesia for a longer period. With these exceptions all patients were completely relieved if the caudal needle was so placed that the anesthetic solution has free and continued access to the peridural space. The average duration of analgesia for primiparas was six hours twenty minutes and for multiparas three hours fifteen minutes. The possible complications of the method are dural puncture, intravenous injection and infection. Obstetric management is facilitated. The second stage is lengthened unless terminated by instrumental delivery in the majority of primiparas. The third stage is usually shortened and the blood loss diminished. One maternal death occurred following inversion of the uterus. The babies are remarkably unaffected. Causes of failures were practically all due to faulty technic or use of the method too early in labor. Unpleasant 'side-effects' include nausea. There were no sequelae of any importance." 12 references.

J. C. M. C.

MUELLER, LILLIAN B.: *Spinal Anesthesia for Cesarean Section*. *J. Indiana M. A.* 37: 238-240 (May) 1944.

"The series . . . consists of fourteen sections done under spinal anesthesia, nine at the Indianapolis City Hospital and five at the Coleman Hospital. In one case the spinal anesthesia was of insufficient length and was supplemented with sodium pentothal. Four patients were given morphine and scopolamine preoperatively, eight received barbiturates, and two had no

preoperative medication. In all cases, except the macerated fetus, the babies cried spontaneously. In all cases the uterus contracted promptly after delivery and uterine bleeding was minimal. There were no maternal deaths. The only infant death was . . . [one] premature stillborn. . . . The advantages of spinal anesthesia hold true for the operation of cesarean section as much as for other abdominal surgery. Among these may be mentioned the better abdominal relaxation and the contracted intestines. The gut never forces itself up into the incision, as it often does under light inhalation anesthesia. Other points of advantage are the diminished blood loss, the fact that there is no disturbance of existing pathology of the circulatory, respiratory or genito-urinary systems of the mother, and the absence of nausea and vomiting, so that the mother may take fluids by mouth and resume her normal diet sooner." 7 references.

J. C. M. C.

SIMPSON, C. M., AND BRADFIELD, E. C.: *Spinal Anesthesia*. *Texas State J. Med.* 40: 18-23 (May) 1944.

"Spinal anesthesia has obtained both a useful and popular place in the anesthetic field. This study is based on the use of spinal as the anesthetic of choice over a consecutive ten-year period in a clinic [Scott and White Hospital, Temple, Texas] where other types of anesthetics and competent anesthesiologists to give them were at all times available. Out of a total of 24,467 anesthetics, spinal anesthesia was used 959 times, constituting an incidence of 3.8 per cent. . . . In this series it was used only nine times in patients under 20 years of age, the youngest being 14 years. . . . The types of operation justifying or demanding spinal anesthesia have been limited, for anatomical and physiological reasons, to those be-