three-quarters of an hour, duration being roughly correlated with the persistence of caudal effect after discontinuation of the drip. Observations in most cases were consistent with the interpretation that paralysis is an early sign of overdosage or a result of prolonged continuous block. ... Among the forty-nine cases in which blood pressure was carefully watched, thirty-one showed some depression; in eighteen cases the systolic fall was at least 20 points. One three pound infant was stillborn. ... [In one case] both mother and child died. ... The accidental pushing of the needle too far into the caudal canal when the patient moved was, we believe, responsible for her death. Other complications included nine cases of excitement and disorientation, ten of nonuterine pain, four of chills, five of burnings, eight of nausea and/or vomiting, three of dizziness, one of an uncontrollable desire to defecate, and two of unilateral anesthesia of the perineum. Any method which produces such complete and dramatic obstetric analgesia cannot be dismissed because of certain disadvantages and inconveniences to the physician. The disadvantages may in time be eliminated by continual modification of technic. Although continuous caudal analgesia is still in an experimental stage, we maintain confidence in its eventual destiny as an addition to our obstetrical armamentarium. In its present state, however, its inherent disadvantages obviate its universal use, and thus preclude its acceptance as the long awaited panacea.” 7 references.

J. C. M. C.


“We have used continuous caudal anesthesia in our clinic [Section of Obstetrics of the Surgical Service of Brooke General Hospital, Fort Sam Houston, Texas] since August, 1942. Since that time we have managed 1,500 cases using this technic. ... Three types of solution were used: Procaine hydrochloride 1.5 per cent, 900 cases; metycaine 1.5 per cent, 500 cases; pontocaine 25 per cent, 100 cases. These solutions were prepared using normal saline as the diluent. In this series, 1,236 cases were managed without any other type of analgesia except barbiturate premedication. In 192 cases it was necessary to supplement caudal anesthesia with other analgesics such as morphine and hyosine and the barbiturate in the first stage of labor. In these cases, caudal anesthesia was used only for the terminal portion of the first stage and for delivery. ... Thus, 1,428 cases were delivered successfully under caudal anesthesia without any supplemental anesthesia at the time of delivery. In the remaining 72 cases caudal anesthesia failed completely for the following reasons: 1. The needle was inserted into the subarachnoid space, 4 cases. 2. Hysterical patients became unmanageable. 3. Disproportion of the head and pelvis with prolonged labor. 4. Insertion of the needle into the caudal canal was technically impossible, 4 cases. 5. A psychotic patient who was completely disoriented and could not be managed. 6. The catheter slipped out in three cases where technic of tapping was faulty. 7. Severe nausea and vomiting. 8. Severe radicular pains. ... Continuous caudal anesthesia should not be used in: (1) Cases of placenta praevia and abruptio placenta; (2) cases of disproportion between the head and pelvis; (8) gross abnormalities of the spine in the lumbosacral region; (4) patients who have had recent surgery about the sacral area, such as a pilonidal cyst excision; (5) patients with any skin disease or with multiple boils or carbuncles; (6) patients who give a
history of sensitivity to procaine; (7) very obese patients where the landmarks are not palpable. . . . In all of our patients we have found that the second stage of labor is greatly altered. The alteration is due to two factors: 1. The patient has no desire to bear down because of anesthesia of the pelvic structures. 2. Relaxation of the pelvic floor and perineum. . . . Our fetal mortality was 38 deaths, or 2.6 per cent. . . . Irregularities and slowing of the fetal heart rate occurred shortly after the first injection of the solution in 20 per cent of the cases in the series in which procaine was used. This was also noted in 60 per cent of the cases in which metycaine was used. In succeeding injections only 1 per cent showed irregularities in the fetal heart rate when procaine was used, while 20 per cent showed irregularities when metycaine was used. In these cases where the irregularities and slowing occurred with subsequent injections, there were also noted large quantities of meconium. In 5 cases in the latter group the babies were stillborn; the autopsy revealed no findings except diffuse edema of the brain. One of these fatalities occurred in the procaine series, and four of them in the metycaine series. In one case the fetus died in utero five minutes after the third injection. Within two minutes after the injection the fetal heart became irregular and gradually weaker until it completely stopped. All of the above mentioned stillborn died in the first stage of labor. Prior to our use of caudal anesthesia we had only one full term stillbirth in 1,500 cases at this clinic. As compared to five in this reported series, all of the deaths mentioned above occurred in cases where the babies were alive when the patients entered the hospital, the deaths occurring during labor and before delivery. This is a small series of cases and no definite conclusions can be drawn, but it is our impression that these deaths were a direct result of the drugs used. Since these cases in which procaine was used showed less fetal distress, we believe that procaine is a safer and less toxic drug from the standpoint of the baby than any other drug used. . . . As continuous caudal anesthesia necessitates a larger percentage of operative deliveries, it should be used only by a competent obstetrician who is well trained in all types of operative technics. . . . One of the great advantages of continuous caudal anesthesia is that there is no respiratory depression of the baby. Continuous caudal anesthesia has proved of value in the management and control of symptoms in eclampsia. Continuous gravity administration has proven to be a great technical advance in continuous caudal anesthesia. All patients should receive premedication with a barbiturate. In addition, it is advisable to give each patient, as premedication, ½ gr. of ephedrine to alleviate the possibility of circulatory collapse. The indwelling catheter technic is safe, less traumatic, and more comfortable to the patient. Absolute asepsis must be observed at all times.” 6 references.

J. C. M. C.


“I intend to talk chiefly about the difficulties encountered with the method. The additional time required has been the factor which has limited my use of the method. . . . Several of the published reports of accidents have been particularly thought provoking. Among these is the report by Diddle and Hill of a fatal pulmonary embolism arising from a thrombosed vein in the sacral canal. . . . Perhaps it is unwise, when caudal analgesia is used, to allow attempts at spontaneous expulsion. . . .