

technic, and a rate of flow of metycaine solution of 60 drops per minute with no pinch clamp applied to the tubing, excellent caudal anesthesia was obtained in twenty minutes. My patient made rapid progress and at the end of one hour was fully dilated, the membranes were ruptured and the head was just on the perineum. The patient was smiling, talkative and cooperative. Rather suddenly she appeared to become drowsy, closed her eyes, rolled her head from side to side, gave several gasps and became apneic and rapidly cyanotic. Her teeth were tightly clenched, and it was with considerable difficulty that her jaw was pried open and a mouth gag inserted. Heart sounds were rapid and barely audible. The blood pressure could not be obtained. The needle was immediately withdrawn from its supposed position in the caudal space, but it was noted before doing so that the rate of flow had not accelerated; in fact it was only about 50 drops per minute. One hundred per cent oxygen was given and nikethamide injected intravenously. Artificial respiration was applied. After about three minutes the patient began to breathe and the cyanosis began to clear. The pulse became stronger and slower. The baby was extracted by forceps while resuscitative measures were being applied to the mother and was normal in every respect, crying immediately after delivery. The patient did not regain consciousness to the point at which she was cooperative for half an hour, and when tested at this time she displayed a complete sensory anesthesia extending as high as the lower axillary line. There was complete motor loss of the extremities. From this point on her convalescence was exactly like that of any other patient receiving a spinal anesthetic.

"The total amount of metycaine solution used was 90 cc. over a period of

about one and one-half hours. Since the rate of flow was slow throughout this procedure, even though it came from a reservoir bottle at a level of 5 feet above the patient, with unobstructed outflow, the question arises as to whether it is possible for the anesthetic solution to diffuse into the subarachnoid space, even though the needle is properly placed in the caudal canal." 2 references.

J. C. M. C.

NICHOLSON, M. J.: *Regional Anesthesia*. New England J. Med. **229**: 244-250 (Aug. 5) 1943.

"In the current progress of regional anesthesia three new developments are outstanding. They are continuous caudal anesthesia for obstetrics, the subarachnoid injection of ammonium sulfate for the relief of intractable pain and refrigeration anesthesia (cryoanesthesia)."

J. C. M. C.

JAMES, N. R.: *Infiltrator for Regional Analgesia*. Lancet **1**: 738-739 (June 12) 1943.

"Compressed air . . . passes by means of a Schrader connexion into a modified filter . . . which removes any minute particles of dust, etc. The air then passes into an ordinary two-gallon pressure chamber such as that normally used in commercial painting, and exerts pressure (50 lb. per sq. in. is the usual pressure) on the analgesic solution contained in a stainless steel inset; the solution is forced up a stainless steel pipe into a non-ferrous air-trap which remains shut until the analgesic solution is exhausted; then the trap opens and releases the compressed air—thus definitely preventing any chance that air will be accidentally injected into the patient. The solution, on leaving the trap, passes along the flexible rubber hose to