inch spinal needle may have to be inserted all the way to the hub. The possible risk of entering the cord proper or the spinal canal does not exceed that of the interspinous course. The fundamental distinction to be kept in mind is that in this technic the direction and course of the needle are determined by the slanting position of the vertebral laminae, and not by the horizontal direction of the spinous processes.

"In no case have the authors found it necessary to forego spinal anesthesia solely because of a mechanically unsatisfactory or difficult subarachnoid puncture, since where one method failed, the alternate procedure was successful." 14 references.

J. C. M. C.


"I believe we should study caudal analgesia, evaluate its merits, and form an unbiased opinion of it. This opinion, to have any value, must be formed after the doctor has taken the time and trouble to learn the technique and has followed enough cases to know the results obtained. It is highly questionable whether the committee appointed by a national obstetrical society went to this trouble and followed up enough cases to make their conclusions trustworthy. I would like to suggest that our own State Medical Society [North Carolina] appoint such a committee to study this procedure, which might mean so much to childbearing women. Let them reserve their opinion and report until they have actually used the procedure in 50 to 100 cases, and given them an adequate follow-up study. The technique is not to be mastered by the average doctor with fewer cases."

J. C. M. C.

Levine, William; Taller, Herman.


"We have not deviated from the method of administration of continuous caudal analgesia as originally described by Hinsin and Edwards. . . . During the past two and one-half years there were 6,736 deliveries. We administered continuous caudal analgesia to 1,639 patients. Of these 1,527 had complete relief from pain during labor and delivery. . . . Forty patients had only partial relief from pain during labor and delivery was accomplished by supplementary inhalation anesthesia. There were also seventy-four patients who had no relief from pain at all. Both of these groups are classified as failures. . . . Dislodgment of the needle or inability to block the eleventh and twelfth dorsal nerves effectively accounted for most of the partial failures. . . . "Early correction of occiput-posterior position and deep transverse arrest account for the increase in major operative deliveries and not the analgesic method used. Such early correction prevents soft tissue trauma, prevents pelvic relaxations and displacements and intracranial damage in the fetus. There was a higher percentage of major operative deliveries when continuous caudal analgesia was used. The complications during the following delivery, however, were much fewer than those found in the cases in which the major operative procedures were done with other forms of anesthesia. There is no delay in initiation of fetal respiration. Fetal distress is very rare. Ten stillbirths occurred; six were suspected before the analgesia was started and were confirmed by presence of maceration. Four stillbirths were due to obstetrical trauma: . . . There was one maternal death which occurred after
delivery and after six hours of uneventful continuous caudal analgesia. It is doubtful that this method of analgesia was the cause of this death." 9 references.

J. C. M. C.


"When a new compound has required testing for activity as a local anaesthetic, the methods hitherto available have been rough methods allowing an approximate measure of potency to be obtained provided that a good deal of care was taken. . . . The usual aim has been to find the lowest concentration which produced anaesthesia. The practical difficulty of finding this threshold concentration is greater than might be supposed, and a recent proposal made by Chance and Lobstein (1944) has proved to be an important step forward. They applied a given solution to the cornea of the guinea-pig at a certain time, and at regular intervals they tested the corneal reflex by touching the cornea with a light object, not once, but six times, and determined what proportion of the six stimuli were effective. It might be expected that the cornea would either be anaesthetized fully or not anaesthetized at all. This is not so. Anaesthesia may, of course, be complete, and then all stimuli fail. There is, however, a stage in which the anaesthesia begins to diminish, and from that point until it has completely disappeared the proportion of stimuli which evoke a response slowly increases. By testing a compound on the eyes of a group of guinea-pigs and determining for each concentration the mean rate of disappearance of anaesthesia, it is possible to make an accurate comparison between one compound and a known substance like cocaine which is chosen as a standard. . . . The principle of the method of Chance and Lobstein has now been applied by Bülbring and Wajda . . . to the intracutaneous-wheal test in guinea-pigs proposed by McIntyre and Sievers. . . . In addition to nupercaine, cocaine, β-eucaine and procaine were tested in this way. . . . For each of these substances the relation of the degree of anaesthesia to log concentration was found to be linear, and the straight lines for nupercaine, β-eucaine and procaine were approximately parallel. The line for cocaine was steeper. The fact that linear relations were found for each substance indicates that the method is a good one and gives a means of obtaining a quantitative comparison of two substances for local anaesthetic activity on sensory nerve endings in the skin of the guinea-pig. In comparing two substances it is obviously important that the comparison should be made simultaneously, injecting both substances into each guinea-pig. It would be unwise to test the two compounds at different times, or to test them on different guinea-pigs. The fact that cocaine gave a line . . . differing in slope from the lines given by the other substances was thought likely to be due to the vasoconstrictor action which cocaine possesses. There was at least no other known property of cocaine to which the difference might be attributed. A direct comparison was therefore made between a solution of cocaine and a solution of procaine to which adrenaline was added in a concentration of 1 in 100,000. The result of this comparison . . . shows the line for procaine plus adrenaline to be parallel to the line for cocaine, and in the presence of adrenaline lower concentrations of procaine become effective. . . . Sollman (1918) described a method of estimating local anaesthetic action in frogs in which the solution was applied to the sciatic plexus. . . .