is rather easy to allow the administration of the general anesthetic to proceed so that sufficient relaxation is maintained without more curare. This is what we should avoid. The patient recovers from curare without the slightest depression. Our object is to avoid the depressing effect of deep general anesthesia. Although the duration of the curare effect is usually as stated above from twenty to ninety minutes, it should never be repeated according to lapse of time but only as the signs of receding effect appear. Then the second and ensuing doses should be smaller than the first. . . . It seems that curare bids fair to replace not only a great deal of deep ether anesthesia but a great deal of spinal anesthesia as well.” 5 references.

J. C. M. C.


“I offer this paper with a certain feeling of apology. I have no illusions about my being one versed in the art of anesthesia. However, I have two reasons for presenting it. In the first place, I should like to express the satisfaction and the feeling of safety that this type of anesthesia has given me after many years of experience with the one dose of spinal anesthesia and, secondly, to demonstrate the method of introducing the soft malleable German silver needle that I have been using. This has made easier for me the only really difficult part of the procedure. Since January, 1930, when I first joined the surgical service of the Veterans Hospital and including the last four months since I left it, spinal anesthesia was used on 8,140 occasions. To a certain extent we were forced to spinal anesthesia. For, strangely enough, the Veterans Administration which, prior to the war, was probably the largest medical organization in the world, hires no trained anesthetists. . . . Often I have been amazed by the relaxation that can be obtained and the comfort that can be given to a patient by the use of local and splanchnic novocaine as an adjunct to a waning spinal anesthesia, when injected sub-peritoneally, intramuscularly, and into the splanchnic area, by the method of Farr and Maxeiner. Large wheals of novocaine placed into the gastrohepatic and other mesenteries gravitate back into and anesthetize the splanchnic plexus. . . . In 1939, Lemmon reported 100 cases of what he calls by various names—continuous, serial, fractional, controllable, intermittent spinal anesthesia. . . . Since June of 1943, we have used this method in 105 cases and, for the most part, have been well pleased with it. We have limited its use to what we expected would be a long or difficult case, or to the poor-risk patient where we felt spinal anesthesia would be more suitable than inhalation or intravenous anesthesia. . . . We have followed Lemmon’s advice in regard to the drug to use and have limited ourselves to novocaine exclusively. . . . The only real difficulty in continuous spinal is the introduction of the soft flexible German silver needle. Most authors whom I have read, recommend the use of a Sise introducer to puncture the skin and the interspinous ligament. This then is removed and the soft needle is put through the tract that this leaves. I have been using a different technique. Instead of pulling the introducer out I leave it in and make the spinal puncture through the introducer. After spinal fluid is obtained, the introducer is withdrawn from the skin or at least into the subcutaneous fat where it is left to stay hanging around the spinal needle. This withdrawal is a very essential step. One dare not leave the introducer in its original position in the interspinous ligament. Any mo-
tion of the patient could easily shear off the soft needle as it emerged through the end of the introducer. We now use a No. 19, 4-inch needle whereas before it was necessary to use a No. 18 needle. The smaller needle makes a smaller puncture hole in the dura and as a result, there is less danger of post-spinal headache from leakage of spinal fluid.”

J. C. M. C.


“In 1942 Hingson and Edwards through a familiarity with the continuous spinal anesthesia method introduced by Lemmon, first published their report on continuous caudal analgesia in obstetrics. . . . It is generally agreed that the most important cause of failure is the inability to insert the needle properly into the caudal canal. We decided, therefore, to investigate the possibility of continuous spinal anesthesia. While the method has been used for some time in cesarean section, this is the first attempt, to our knowledge, to apply it to labor and vaginal delivery. This preliminary report is based on our experience in its use on fifty cases. . . . Comparison between the various drugs seems to indicate the superiority of 1.5 per cent metycaine in Ringer’s solution. It has been shown that the most favorable site of injection is the first or second lumbar interspace. Premature institution of the method invariably results in prolongation or cessation of labor. The patient should be in active labor with the presenting part in mid pelvis and the cervix 2 to 4 cm. dilated, depending upon the parity. The progress of the first stage is apparently accelerated. The second stage of labor is altered, and the incidence of operative de-

livery is greatly increased. The third stage of labor proceeds normally, and the blood loss is minimal. This anesthesia is without adverse effect on the baby. We do not advocate this method as a routine procedure and urge caution in its employment. While no serious complications occurred in this series, further trial is necessary to evaluate its future place in obstetrical anesthesia.” 2 references.

J. C. M. C.


“On April 10, 1939, we administered the first continuous spinal anesthesia to a human being. Since then, we have given over 2,000 anesthesias by this method, and in this communication we are reporting some of our observations and impressions on these cases. . . . In this series of cases we have used procaine hydrochloride as the anesthetic agent, with one exception, when we used metycaine, because the patient was sensitive to procaine. Procaine was chosen deliberately, because we believe that it is the least toxic of all the drugs used for this purpose, and it has the most fleeting action of all the drugs of this nature. . . . We feel that one of the most important steps in the production of a satisfactory spinal anesthesia is the administration of the proper preliminary medication. . . . Our routine is to give the patient 3 gr. of nembutal the night before operation, followed by another similar dose three hours before operation. One hour before operation, a hypodermic injection of morphine sulphate gr. ¼ and scopolamine hydrobromide gr. 1/100 is given. This dosage is for the average good-risk adult who is not seriously ill. . . . Other than the preliminary dose of ephedrine given with the procaine for skin anes-