

lateral ankle tenderness. Reinjection of these eight patients within six to twenty-four hours after the primary infiltration gave an excellent and permanent result in four, a fair result in one, and was a failure in three. A careful review of these three cases disclosed that a fissure fracture of the os calcis had been overlooked in reading the wet plates in one, a fracture of the astragalus in the second, and a very extensive ligamentous injury in the third. . . . The additional four patients, first seen from thirty-six hours to ten days after their injury, were all treated by injection after the possibility of bony injury was excluded. An excellent result was obtained in one, a fair result graded at 50 per cent improvement with two injections was obtained in two, while there was no benefit in the fourth. It seems well established that maximum results may be expected with injection therapy only in those patients seen within twenty-four hours after injury." 13 references.

J. C. M. C.

RISSEK, PHIL, AND EMANUEL, ROY: *Low Spinal Anesthesia in Obstetrics*. *J. Oklahoma M. A.* 39: 329-333 (Aug.) 1946.

"We are reporting a series of 118 consecutive deliveries under spinal anesthesia. We have worked independently and these cases represent approximately one-third of the patients delivered by us over a two year period. . . . We routinely use outlet forceps and episiotomy in the delivery of primipara, or in patients of any parity where the perineal tissues are retarding delivery of the head. Spinal anesthesia was chosen in these cases because it is the anesthesia which most facilitates delivery; the operative procedure was in no case made necessary by the use of spinal. We would use spinal

in many more cases which deliver spontaneously, except for the fact that we have not yet learned how early spinal anesthesia can be introduced in multipara, and so are unable to use it because we misjudge the rate of progress in labor. . . . It should be emphasized here that spinal anesthesia is not to be used for cases requiring version. This is because the regular uterine contractions of labor continue with undiminished tone and so render such maneuvers extremely dangerous, as well as difficult. . . . There were no maternal deaths in the series. Only one patient showed a degree of shock which necessitated active treatment. In this case, it followed a long manipulative delivery and occurred three hours after the introduction of the anesthesia, and cannot be considered as due to the type of anesthetic. . . .

"Smaller amounts of drug than are used for even the lowest abdominal surgery will give obstetrical anesthesia lasting from 2 to 4 hours. The drug is given in not more than one to one and one-half cc. of liquid vehicle, with no barbotage. It is introduced low in the spinal canal—between L 3 and 4 or even between L 4 and 5—while the patient is in such a position that her hips are lower than her shoulders. The patient's head is kept elevated on a pillow at all times after she is turned on her back. In a few cases these precautions will keep the anesthesia so low that labor pains will be incompletely relieved. Anesthesia will still be found adequate for any type of pelvic delivery and repair, and will last from 2 to 4 hours. The number of infant deaths, three, is large for 118 deliveries. . . . None of these deaths can in any way be attributed to the type of anesthesia. Of the remaining infants delivered, only two were cyanotic enough to cause the obstetrician to use restorative measures. Both of these responded promptly to

the administration of CO₂ and O₂. . . . Slowing of the fetal heart can be detected following the induction of spinal anesthesia in the mother. I ascribe no clinical importance to this, in view of the excellent condition of the infants after delivery. . . . The old belief which has been often repeated, that spinal anesthesia in delivery was attended by increased bleeding and danger of hemorrhage, is not substantiated by observation. . . . We are not proposing that spinal anesthesia in obstetrics is the best solution to the problem of analgesia and anesthesia for childbirth. We do not advocate or encourage its use by all physicians practicing obstetrics. . . . For us it has yielded good results."

J. C. M. C.

COMPTON, J. ROY: *A New Introducer and Cannula for Obstetric and Surgical Cases Suitable for Caudal Analgesia*. *Am. J. Obst. & Gynec.* 52: 503-504 (Sept.) 1946.

In 1944, the author described a procedure employing the Hingson needle termed "The Original Pressure Point Technic for Insertion of the Caudal Needle." Recently he has perfected an introducer and cannula of a new design which made the pressure point technic still more effective.

The Compton caudal introducer is a semicircular introducer with an easy-to-grasp handle, is 13 gage, 2½ inches long, made of stainless steel, with a short bevel to carry the Compton cannula or a number 6 ureteral catheter. The Compton caudal cannula is a number 5 French cannula, 2½ inches long, made of stainless steel, with a round end and bilateral fenestra.

Seven advantages are listed, including simplicity of use, lessened possibility of infection, less likelihood of piercing related structures and freedom from breakage.

M. F. P.

ROBBIE, W. A., AND LEINFELDER, P. J.: *Oxygen Consumption and Drug Action: A Method for Measurement of the Respiration of Aquatic Animals*. *J. Lab. & Clin. Med.* 31: 918-923 (Aug.) 1946.

"Many drugs affect tissue respiration, and in order to study the relationship between drug action and cellular metabolism it is frequently necessary to make measurements of the rate of oxygen consumption. With isolated cells or tissue slices the Warburg manometric technique is applicable; however, with larger intact organisms it is impractical to maintain oxygen equilibrium by shaking the immersion fluid, and some other method must be used. A modification of the constant-flow manometric respirometer, described previously for use with small mammals, has been shown to be suitable for this purpose. The method is simple and determinations may be made at frequent intervals. . . . The sensitivity may be varied by adjustment of the volume of the system. It is useful in cyanide inhibition studies." 5 references.

J. C. M. C.

MILLEN, ROBERT S., AND DAVIES, JOSHUA: *See-Saw Resuscitator for the Treatment of Asphyxia in the Newborn*. *Am. J. Obst. & Gynec.* 52: 508-509 (Sept.) 1946.

The see-saw method of resuscitation, described by Eve, was used in a case of asphyxia in a premature infant. In this method, the position of the body is alternated frequently by rocking on a trestle, so as to allow the weight of the liver and abdominal contents to drop downward and thus pull air into the lungs when the head is raised and the feet lowered; and the reverse to take place, causing expulsion of air from the lungs when the head is lowered and the feet raised.