

spectively, we believe it to be significant. As a preanesthetic medication, demerol is not surpassed by the other preanesthetic combinations in common use. The amount of anesthetic agent required is approximately the same as in those patients receiving barbiturates. There were no major pulmonary complications. Intravenous administration has been employed in those patients admitted in active labor and expected to deliver within 2 hours. It has also been used for premedicating cesarean sections. . . . The only maternal untoward effects in the series were seen in the intravenous group. With the exception of transient nausea in one-fourth of the cases, no further side effects were seen when the drug was administered slowly, taking a minimal two minutes by the clock to inject 2 cc. (100 mg.). The analgesic properties of demerol are demonstrated by a series of 37 patients delivered without anesthesia, of whom 79 per cent could recall no pain whatsoever. Demerol exerts no demonstrable depressant effect on either full-term or premature infants, whether administered by the intramuscular or the intravenous route. In view of the satisfactory amnesia, the absence of pulmonary complications, and the freedom from depressant effect on the fetus, it is our opinion that demerol in conjunction with scopolamine is superior as an obstetrical analgesic to other analgesics in common use." 16 references.

J. C. M. C.

SAGE, E. C.: *The Care of the Parturient Woman in Relation to Neonatal Mortality*. J. A. M. A. **124**: 339-343 (Feb. 5) 1944.

"According to several observers, asphyxia is the most important and frequent cause of neonatal death. . . . The prevention of fetal asphyxia demands methods of obstetric anesthesia and analgesia that do not produce fetal

anoxemia or injure the fetal respiratory center. The answer to this prayer, theoretically, is continuous caudal anesthesia. . . . This method must not be employed by those who are not adequately trained both in the administration of anesthesia and in obstetrics. With this type of anesthesia, primary respiration in the infant is established promptly, and maternal anesthesia is satisfactory without producing harmful fetal asphyxia. . . . Caudal anesthesia requires both technical skill and institutional supervision." 23 references.

J. C. M. C.

TORPIN, RICHARD: *The Care of the Fetus during Labor*. J. A. M. A. **124**: 343-351 (Feb. 5) 1944.

"In this day and age some sort of amnesia, analgesia or anesthesia in labor is necessary as well as prudent. Probably all the methods have on occasion some deleterious effect on the fetus, one of the older of the modern methods, twilight sleep (morphine and scopolamine) having gained a notorious reputation for its blue babies, and the youngest, continuous caudal analgesia, being associated with a high incidence of forceps deliveries. Very likely the method most universally used is that of amnesia produced by the shorter acting barbiturates and scopolamine. Properly administered, the latter has the advantages of being less depressing to the fetus than some of the others and of being quite easily administered and usually quite satisfactory from the mother's point of view. Infants are depressed in some cases, some being apparently more susceptible than others, and if inhalation anesthesia, as ether or cyclopropane, is used in the late second stage, the infant may be very depressed, as it is also in case of additional difficult operative delivery. Consequently with the use of barbiturates and scopolamine, it is well to

use infiltration of 0.5 per cent procaine in the perineum if episiotomy is done or if forceps are used. Continuous caudal analgesia, like local infiltration of procaine, may be as little depressing to the fetus as no anesthesia at all. The latter long has been recognized as the best for the fetus. This fact has prevented many obstetricians from embracing any attempt at anesthesia other than a few 'whiffs' of an inhalation anesthetic agent at the end of the second stage. Continuous caudal analgesia has the added disadvantage of requiring expert administration and constant skilled supervision, often for many hours. Otherwise infection and other complications may arise. Whether or not analgesia or amnesia has been induced, the obstetrician should be ready to maintain oxygenation of the fetal blood after birth until the respiratory depression is overcome.

"Caudal analgesia may be ideal in case of bag insertion, to be followed by operative delivery, thus eliminating double anesthesia. Meconium stained amniotic fluid was present in a number of cases of our series under continuous caudal analgesia. The fetuses cried immediately at birth and hypoxia was not present. . . . Almost all recent writers on the subject agree that inflation of the lungs by oxygen or air is the most valuable measure to be taken in reviving the depressed infant. . . . As the immediate cause of eclampsia is not known, it is necessary to treat the condition symptomatically, and here, especially, good therapy to the mother is life saving to the fetus. . . . Convulsions must be stopped. If they are severe, a sterile solution of phenobarbital sodium is given intravenously until controlled. Magnesium sulfate is used in addition for its possible effect in reducing the blood pressure, a gram an hour so long as the systolic pressure is above 160. Other barbiturates or paraldehyde may be used if necessary for sedation, but we do not use

morphine because of its effect in increasing intracranial pressure and failure to control convulsions adequately. . . . Students of pregnancy in heart disease agree that labor at the time of congestive heart failure is highly fatal and much of the improvement in care has been in preventing failure throughout pregnancy. During labor the fetus demands more consideration than it has received and, because of possible increased hypoxia, insufflation methods should be at hand to oxygenate the fetus until it breathes spontaneously. Continuous caudal analgesia should be the anesthesia of choice in these cases." 30 references.

J. C. M. C.

TYSON, R. M.: *Immediate Care of the Newborn in Relation to Neonatal Mortality*. J. A. M. A. 124: 351-357 (Feb. 5) 1944.

"Little can be done to overcome severe asphyxia neonatorum apart from preventing the circumstances preceding birth which precipitate it. . . . The increasing use of deep analgesia and anesthesia for delivery of infants has been accompanied by a corresponding increase in the incidence of death from asphyxia. . . . One cannot expect a newborn infant to breathe spontaneously when its own blood is full of the anesthetic or analgesic administered to the mother and a relative state of anoxemia exists. The carbon dioxide content of the infant's blood may be high enough, but it fails to govern respirations in a normal physiologic way because of the presence of the hypnotic drug. This is particularly true in those cases in which some emergency complication of labor or delivery has occurred necessitating prompt surgical intervention and relatively deep anesthesia. When an analgesic has also been used prior to the emergency, added danger looms and the loss of blood, length of time consumed before delivery, pro-