

the operation, the more chance has the fœtus of living after it; but unfortunately its size and consequently the difficulty of its delivery, increase with its age. If possible, the operation should be done about the 34th to 36th week, our object being to operate at the latest possible period consistent with safe delivery.

To fulfil this object, we must attempt to gain an accurate knowledge as to the size of the child's head. Unfortunately we are unable to determine its size with mathematical precision, or even with the relative precision of pelvimetry; so we are obliged to take advantage of every possible hint on the subject. Some of the following points may be of assistance in different cases. We must consider the mother's account as to the duration of the pregnancy. Notice the size of the parents, large parents usually having large children. Inquire about the previous labors, particularly as to the size of the head. Endeavor to estimate the size of the head by abdominal and combined abdominal and vaginal palpation; and note the consistency and amount of resistance to compression that the bones of the head offer.

Try to measure the head with the pelvimeter through the abdominal walls, and deduct the estimated thickness of the abdominal walls from the result. Notice the size of the large anterior fontanelle, average with 2 cm.; the width of the sutures, and the distance from the anterior to the posterior fontanelle; for as they are larger or smaller, it indicates a larger or smaller head. Measure the length of the fœtus as it lies in utero, from breech to vertex, double the measurement and it gives, according to Ahlfeld, the length of the fœtus. If a foot is prolapsed, measure it, for Goenner stated that there is a difference of nearly one centimeter between the length of the foot of a child at term and one at 32 to 34 weeks.

One of the most important methods is that of Mueller, who attempts to force the head down into the pelvis by pressure from above. As long as he is able to force the head down, he knows that labor will readily take place, but when he can no longer force the head down and when it bulges out over the symphysis, then he considers that the time for operation has arrived. As the great danger to the mother is from sepsis, one cannot be too careful in one's efforts to guard against it, and consequently one should be most particular in one's preparation for the operation.

For several days previous to operating, the woman should have a warm bath daily, and several times a day be douched with warm water—95° to 98° F.—containing salt or borax, by which the cervix is softened and dilated. Just before operating, the genitals should be most carefully washed with hot water and soap, followed by a 1 to 1000 bichloride solution; the vagina should be most carefully cleansed. The hands of the operator

should be washed for at least ten minutes in hot water and the nail-brush vigorously used, after which they should be placed for several minutes in a 1 to 5000 bichloride solution.

All instruments should be sterilized by steam, or placed in a 5 per cent. solution of carbolic acid for at least thirty minutes.

The most generally approved method is that of Krause, or the introduction of a disinfected flexible bougie between the membranes and the uterine wall. If properly conducted, it is almost entirely devoid of danger for the mother, and will bring about the birth of the child in a period varying from 8 to 214 hours, averaging about 80 hours—or about three days. To insert the bougie, the woman is placed on her back or side as may be most convenient, and the cervix brought down by a pair of bullet forceps and the cervical canal carefully cleansed with bichloride on a pledget of cotton; the bougie is then carefully inserted so that its lower end is within the vagina, care being taken not to wound the membranes or the placenta. Then the vagina is packed with iodoform gauze, care being taken not to wound the cervix, which serves to hold the bougie in place. If at the end of twenty-four hours no labor pains have been produced, the bougie should be removed and another introduced at another point under the same precautions as the first.

If this method fail we may resort to Kiwisch's method, of allowing a current of hot water, 100° to 110° F., to flow through the vagina several times a day for a period of five to fifteen minutes. Or we may puncture the membrane as accessory to these, we may loosen the membranes about their lower pole; tampon the vagina with iodoform gauze, or employ Barnes' bags.

If the pains are weak, Fehling recommends version by Hicks' method and bringing down one leg, whereby increased contraction is produced and one is afforded a ready means of ending the labor if one deems it expedient in the interests of the mother or child.

Dr. Neale:—I regard the chief point in this very able paper to be the endeavor to definitely fix the limits for the induction of premature labor in contracted pelves, not as opposed to Cæsarian section, but as applicable to a distinct and separate class of cases. This endeavor I strongly advocate, but at the same time must confess that I do not believe the plan is always practicable at the bed-side. There are so many factors entering into the determination of this question, as I stated in my paper, that I can now only repeat what I have quoted, viz., "A given pelvic measurement is useful as an indication of what has been the experience of others under similar circumstances, but is not a final ground for decision."

After the evidence adduced, which doubtless represents the opinion of the best medical authori-