POMEROY (R.H.)

A CASE OF SYMPHYSEOTOMY.

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REPRINTED FROM THE AMERICAN GYNÆCOLOGICAL AND OBSTETRICAL JOURNAL FOR APRIL, 1896.

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In the forenoon of December 5, 1895, the writer was requested by the attending physician to see Mrs. A., aged twenty-five years, in labor at term with her first child. It was stated that labor had been in progress over twenty-four hours, and that the head had as yet failed to engage. Under a misapprehension that the delayed engagement was due to hydramnion, the membranes had been ruptured manually by the physician some five hours prior to my examination of the case, the cervix having been nearly fully dilated at that earlier period. No attempt had been made to force delivery.

The patient was a robust German, weighing normally about a hundred and forty pounds, and was apparently well proportioned. Her family and previous personal history was uninstructive. Abdominal examination demonstrated the fœtal dorsum to the right, and the fœtal heart was distinct in the right inferior quadrant. Vaginal examination revealed a vertex presenting, arrested at the brim by impact against the projecting promontory and the pubic bones. The cervix was not fully dilated, but relaxed readily when distended by the examining hand. The sagittal suture was nearly transverse, with a slight inclination toward the right oblique pelvic diameter. A fontanelle was detected high up to the left. A careful palpation of this fontanelle failed to satisfactorily develop its diagnostic characteristics. It felt very much like the posterior fontanelle, but, in view of the positive findings of the abdominal examination, and the manifest advanced ossification of the cranial vault, it was finally judged to be the bregma. The sacral promontory was unduly protuberant, and the diagonal conjugate was ascertained to measure a scant four inches, indicating a *conjugata vera* possibly as small as three inches and a quarter.

At this time a fluctuating tumor was noticed in the pelvic cavity to

* Read at the January meeting of the Long Island Medical Society.

the right and anterior, below the presenting part. The removal of three ounces of urine by catheter promptly dissipated the point of fluctuation. This dislocation of the bladder downward is at variance with the commonly described upward displacement of that viscus during labor. The effect of this upon the location of the urethra will be subsequently noted.

To make positive assurance of a relative disproportion, the patient was now chloroformed to relaxation and an effort made by combined external and internal manipulation to flex the head and drive it past the brim by suprapubic pressure. The effort failed, and it became promptly evident that the rigid head was pivoting on its biparietal diameter, which could not enter the flattened pelvic brim. What little descent had occurred was effected by a dipping down of the sinciput while the occiput remained suspended between the promontory and the right anterior margin of the inlet.

The case appeared to be a typical one for relief by division of the symphysis. A high forceps operation, with the application of the blades to a head that lay transverse above the brim and that showed no disposition to mold, gave prospects only of a dead fœtus and mangled maternal structures. Version may have been possible, as the head was not impacted, but it would certainly have been with a full measure of risk to the mother in view of the rupture of the membranes five hours before, and the consequent loss of amniotic fluid. That version, if accomplished, would have delivered the child intact is doubtful in consideration of the rigid cranial vault and the constricted passage, especially as the diameters of the head proved to be above normal. Craniotomy on the viable fœtus was not to be thought of.

As the patient lived in a suburban section of the city, something over two hours more was consumed in preparing for the operation. Meanwhile a quarter of a grain of morphine contributed to the patient's equanimity and quieted the pains. At the time of the operation the patient's pulse was below 90 and the fœtal heart distinct. The writer was assisted by Drs. Palmer Townsend and L. C. Ager and an incompetent nurse. The patient was anæsthetized, and placed on a kitchen table with the thighs flexed and secured by Dickinson's sheet sling. The site of the operation was prepared for aseptic work, including a thorough cleansing of the vagina with green soap, followed by mercurial irrigation. Instruments were sterilized by boiling, and the field of operation was surrounded by towels wrung out of a mercurial solution. An ounce of urine was drawn by catheter.

A three-inch incision was made through skin and fat, terminating below at the summit of the pubic joint. Blunt dissection exposed the superior pubic ligament. A probe-pointed bistoury was passed behind the joint until the tip could be felt through the vagina at the level of the subpubic ligament. Cutting upward and forward with a slight sawing motion carried the knife through the joint, which parted half an inch with a perceptible shock. Before passing the blade behind the symphysis a sound was introduced into the bladder to locate the urethra. As noted above, the bladder was displaced downward with the anterior vaginal wall. The urethra was directed downward and backward—as the patient lay—pointing toward the coccyx, and had no proximity to the back of the joint, as would have been the case had the bladder been displaced upward, as usually observed. The hæmorrhage from the wound was insignificant, but iodoform gauze was packed into it between the ends of the bones as a protection during the subsequent manipulations. Moderate pressure applied to the head from above now caused it to sink into the cavity of the pelvis in position right occipito posterior, the pubic bones separating about two inches in the process. Forceps were applied through the dilatable cervix, and the head brought down to the pelvic floor. Rotation of the occiput to the front was effected in the grasp of the forceps, the instruments being removed and reapplied three times as rotation progressed. Some difficulty was experienced with the anterior lip of the cervix, which showed a tendency to prolapse, together with the anterior vaginal wall. When sufficiently dilated it was finally pushed back over the occiput.

One hour was occupied from the time of the first incision to the delivery of the child. The child was asphyxiated, but responded promptly to Schultze's method of resuscitation. The uterus relaxed after the expression of the placenta, and a rather sharp hæmorrhage followed which was controlled by bimanual compression of the uterus. There was a bilateral laceration of the cervix and a fourchette tear requiring two sutures. Catheterization of the bladder now presented a few drachms of clear urine, proving the bladder uninjured.

Pressure applied to the sides of the pelvis and trochanters failed to bring the parted bones in close contact, a quarter-inch space remaining. The deeper portion of the wound was closed by several interrupted catgut sutures. The skin was united by sutures of silkworm gut, and a powder of iodoform and boric acid, equal parts, dusted on the line of the wound. The gauze dressing was retained by a double spica bandage, and over this, encircling and constricting the pelvis,

several turns of a three-inch strip of adhesive plaster were applied, the lower margin on a level with the trochanters. The ordinary binder was worn over all. The patient was put to bed in generally good condition, though the pulse had risen to 110.

The puerperium was marked by no more disturbing feature than a slight incontinence of urine persisting through the first week. A considerable vulvar œdema extended over the same period. The highest temperature was 101.8°, on the fourth day; the pulse ranged from 100 to 120 for a week. One antiseptic vaginal douche was administered on the fourth day. The sutures were removed on the eighth day; there was no suppuration. For the first two weeks the patient was kept mainly on her back, with her hips resting on a small, hard "excelsior" bolster on either side, supporting the lateral halves of the pelvis from the trochanters to the iliac crests. After the second week —all dressings having been removed—a fitted belt of heavy drilling six inches wide was worn. Perineal straps retained the lower edge of the belt just below the trochanters. The pubic region was protected by a felt pad. Wearing this constricting band, the patient was given the freedom of the bed for the third and fourth weeks, at the end of which time she was allowed to stand.

A critical examination at the end of six weeks showed that there was no bony union at the symphysis. With the patient standing or lying on the back a distinct sulcus less than a quarter of an inch wide was felt along the anterior aspect of the articulation. The sulcus disappeared when she lay on the side. This observation would appear to indicate the advisability of the lateral decubitus as the preferred posture for a period following this operation, instead of the dorsal. In shifting the body weight from one leg to the other there could be noted a slight corresponding upward deviation of that side of the pelvis on which the weight was thrown. This lack of rigidity of the pelvis was barely perceptible by the patient when paying heed to the matter. It is not sufficient to cause any disability or sense of insecurity in locomotion. A month later the sulcus was barely perceptible and the ligamentous union was evidently much firmer.

The external measurements of the pelvis were as follows: External conjugate, 7 inches; interspinal, 9 inches; intercristal, 10.25 inches.

The child, a female, weighed nine pounds, stripped.

The measurements of the cranial diameters were: Biparietal diameter, 4.25 inches; suboccipito-bregmatic diameter, 4.25 inches; occipito-frontal diameter, 5 inches; occipito-mental diameter, 5.75 inches; fronto-mental diameter, 3.75 inches.

The cranial bones were well ossified and the bregma was reduced to a quarter of an inch in its longest diameter.

The operation of symphyseotomy in this country has perhaps passed the stage of interest as a novelty, but it is doubtful whether as yet the profession at large has accepted it as having any proper place in the list of obstetric expedients. The statistics, as to both immediate and ultimate results, are marred by including cases in which the operation was resorted to in a tentative or experimental spirit. Not until the operation can be looked upon as a procedure to be judiciously selected to meet the sum of the instant requirements, will the statistics be a full criterion of its usefulness.

The field of symphyseotomy is undoubtedly very limited. The indication will arise least frequently as a matter of pure election before labor, and most frequently in the emergency of actual labor; for while pelvimetry may give us warning of probable difficulties, we find that just below the limit of the normal the mechanical factors of a successful passage of the superior strait are largely *relative*, and are not to be estimated arbitrarily in terms of centimetres or fractions of an inch. And in the emergency, as we usually meet it, many considerations besides the mechanical are to be weighed—the amount of previous manipulation and consequent local trauma, the general condition of both mother and child, and the facilities for establishing asepsis.

My justification for presenting the above case in detail rests upon my conviction of the absolute fitness of the operation for the case in hand. Certainly the recital of the history of even a single case of impeded labor, brought to the happiest termination by the selection of symphyseotomy as the solution of the problem of the studied facts, should be a wholesome testimony to the merit of the operation and to the progress of scientific obstetrics.