

enlarged, but no valvular lesions occur. The urine is generally normal; albumen has, however, been observed in a few cases. An irregular fever is frequent. A temperature as high as  $104^{\circ}$  has been recorded,<sup>1</sup> there being no assignable cause. Usually, however, the temperature does not rise above  $102^{\circ}$ , and it may fall slightly below normal. (One of Quincke's cases.)

The prognosis is necessarily grave. Two recoveries are reported by De Cérenville.<sup>2</sup> Quincke reports two recoveries; one of these, however, died six months later with similar symptoms, and the diagnosis in the other case would appear doubtful from the report.

In regard to the pathology, a summary of recent observations can be found in the *JOURNAL*, October 22, 1874 (Dr. Fitz, Report on Pathology and Pathological Anatomy). Some later observers regard the fatty degeneration of the heart mentioned by Gusserow as a result and not a cause of the patient's condition.

Pepper considered the disease a medullary form of the pseudo-leukæmia (Hodgkin's disease, Trousseau's "adénie"), and found in one case change in the medulla of the tibia. This, however, does not seem to be constant, and is not reported in Pepper's second case.

Little can be said in regard to treatment. Transfusion has been tried in several cases, but without any marked benefit. Iron is not always well borne, and seems to be of little use. Cod-liver oil, iodine, arsenic, and phosphorus are all recommended, but from the reported cases little can be expected from their employment.

LITERATURE. — Pepper, *American Journal of the Medical Sciences*, October, 1875; Immermann, *Ziemssen's Handbuch*, xiii. 615; Quincke, *Volkmann's Samml. klinische Vorträge*, No. 100; King, *British Medical Journal*, 1871; Gusserow, *Archiv für Gynaekologie*, ii., 1871, 218; Biermer, *Correspondenzblatt für Schweizer Aerzte*, ii., 1872, No. 1; Zenker, *Deutsches Archiv für klinische Medicin*, iii., 1874, 348; Gfrörer, *Memorabilien*, xix. 3, page 116, 1874; Ponfick, *Berliner klinische Wochenschrift*, 1873, No. 1; Perl, *Virchow's Archiv*, Bd. 59; Perroud, *Lyon Médicale*, 1869; Cérenville, *Bulletin de la Société de la Suisse, Rom.*, Mai., 1875, page 138; Phillips, *Guy's Hospital Reports*, third series, xviii. 159, 1873.

## CASE OF RUPTURE OF THE SYMPHYSIS PUBIS DURING LABOR.

BY Z. B. ADAMS, M. D., OF FRAMINGHAM.

Mrs. B., patient of Dr. H. Cowles, of Saxonville, forty-two years of age, primipara, medium height, well formed, spare, weight one hundred and ten pounds, arrived at full term of pregnancy on the morning of February 4, 1876. She had enjoyed fair health during gestation, although suffering from œdema of hands, feet, and legs for the last few weeks.

<sup>1</sup> Pepper.

<sup>2</sup> I have been unable to find the reports of these cases.

At this date there was a gush of liquor amnii, without pain or other warning. Seen by Dr. Cowles, the os was found undilated, parts soft and natural, no pains nor other signs of labor.

Twenty-four hours after (four A. M., February 5th), pains began. An examination showed a rigid os uteri, admitting the end of the finger. Micturition frequent. Pains moderate, not achieving much. Vertex presenting. Bowels moved during forenoon.

At 1.30 P. M. "pains more severe. Os one and one half inches in diameter, rigid. No advance of head. Vagina moist. Woman's condition good." Dr. Cowles gave antimony tartrate to emesis; also placed her over a vessel of hot water. At three P. M., "no advance of head. Os dilated to two inches, rigid. Pains somewhat severe, but achieving nothing."

I was called in consultation at 4.30 P. M. Found the condition as above described by Dr. Cowles's notes. Head high up, not movable. Vertex presenting, the occiput to the right acetabulum. Vagina moist. Os uteri two to two and a half inches, rather rigid. Pains ineffectual, not very severe, recurring every five to eight minutes. Patient's strength and condition good.

Advised the use of antimony tartrate per anum, and the application of forceps when the os should become more dilatable. After a time, the conditions appearing favorable, the pains expulsive in character, and the os dilating and dilatable, I applied the forceps under ether, taking the precaution to first empty the bladder. The forceps (Simpson's long) were with some difficulty adjusted obliquely upon the child's head, one blade behind the right ear, the other before the left ear, following Simpson's directions. During two hours thereafter, although the pains were regular, no progress was made, it being out of the question to employ any tractile force by reason of the condition of the os uteri, which, at each pain, clasped the shanks of the forceps as with a tight cord. The forceps were loosened between the pains, the locks being very carefully examined and adjusted at the commencement of each pain, when the grasp was tightened. The head, inclosed in the os and cervix uteri, was engaged in the brim. The child was alive, and the conjugate diameter of the pelvis seemed sufficient to allow the passage of the head if the os were dilated. Soon after six o'clock the ether was stopped, and it was not given again.

The forceps having been about two hours in place, at the commencement of a pain, the locks being adjusted, I requested Dr. Cowles to take the handles, that I might examine the parts at leisure, and assure myself that no injurious pressure was made upon the os uteri. A very severe expulsive pain coming on at this time, traction was made by Dr. Cowles in a backward-downward direction, when something gave way with a sharp crack, a noise sufficiently loud to be heard by all

in the room. Fearing rupture of the uterus, I looked at the woman. The countenance was good. No signs of collapse, no cramp, nor faintness. The os was rapidly dilating, labor going on, the head advancing at once, and pains continuing. A drachm of wine of ergot was given her, and a living child was born in about twenty minutes, with little help from the forceps, which were allowed to remain without change because the labor was progressing so well. During the short time that the head was in the pelvis there was some pain in the pubic region.

The placenta soon came away without unusual hæmorrhage or difficulty. The child, a boy, weighed eight pounds.

Immediately on the conclusion of the labor a full dose of ergot and opium was given. The pulse remained rapid through the night.

Next day she complained of soreness over pubes, but no pain except on motion. Passed water eighteen hours after the accident. Parts so swollen and tender that no examination was attempted. Opium was given. Incontinence of urine then began, and there was thirst and rapid pulse, but no symptoms of metritis or peritonitis at any time.

Four weeks after the accident, examined under ether, complete separation of the symphysis was found; a space of two inches between the ragged edge of the bone upon the right side and the torn ligament and fibrocartilage of the left, with laceration of the anterior wall of the bladder, and rent into the vestibule. The urethra, entire, was very large, admitting one finger readily. This and the rent in the upper angle of the vestibule made it easy to thoroughly examine all parts of the bladder and symphysis. The posterior wall, fundus, and base of the bladder were uninjured. Vagina everywhere whole, although its rectal surface showed irritation from dribbling urine. The os uteri, rather high up, was healthy in feeling, and the sound passed into the fundus uteri two and one half to three inches without the slightest difficulty or appearance of uneasiness. The brim of the pelvis and the promontory of the sacrum, carefully examined, showed nothing abnormal. The unnatural condition of the bony parts made any measurement of diameters uncertain.

The experienced accoucheur may claim that the forceps should never be applied before the os uteri is fully dilated. Granted that this was wrong, it is difficult to explain what connection, if any, this could have with the occurrence of the accident. It is certain that the forceps never slipped, and that their situation upon the head, and their bearing upon the pelvic bones and soft parts of the mother, were repeatedly and carefully examined. Their place was never changed, nor any attempt made to alter it. They did not break, nor twist, and were withdrawn only with the child's head inclosed between the blades at the conclusion of the labor. No change was attempted, because it seemed impossible to improve upon their adjustment. An examination of the

child's head after birth, and recalling the position of the head in the brim at the time the instruments were introduced, showed that they were rightly placed. There is not a particle of evidence to show that any of the soft parts upon which they rested or impinged at any time were in the smallest degree contused, lacerated, or injured in function. The laceration of the bladder was confined to its anterior wall, and must have been made by the ragged edge of the bony symphysis, perhaps during the passage of the head. I am further assured by Dr. Cowles, who was holding the forceps at the instant when the rupture occurred, that he did not employ an unusual amount of force. The same is my own impression, confirmed by an examination of the forceps-marks upon the child's head, these marks being slight for instruments which had been kept two hours in place without change. There could have been no twisting or displacement of the instruments unperceived by me, as I was at the moment feeling with my finger around the shanks of the forceps, to determine the condition of the os uteri.

Rare as is this accident, and improbable as its occurrence appears (it is even declared by a very high authority to be *impossible*), we can hardly escape the conviction in this case that rupture of the symphysis pubis occurred during labor from pressure of the foetal head, whether this pressure was due to the expulsive efforts of the womb, to traction by forceps, or to the mechanism of both these forces combined. It is possible that some exostosis, or some abnormal development, or some disease of the bones, may exist in this woman, but this is not proved, and certainly she is, or was, without evident deformity.

A recapitulation may be pardoned. A primipara, medium sized, well formed, forty-two years old. Liquor amnii escaped twenty-four hours before labor began. Head for several hours, say eight, fixed in the brim. Os rigid, undilated. Presentation vertex, second position. Bladder emptied, and forceps applied. Expulsive pains strong, and traction upon instruments in direction of axis of brim made at same time, the symphysis pubis gave way with a loud crack. Forceps did not break, nor slip, nor twist. Labor rapidly completed.

Woman and child now alive, June 17th. The former can get about the room a little. Child well.

NOTE. — While it seems very improbable that an operation so serious as symphyseotomy, or the Sigaultian section, should be suggested and performed upon grounds purely theoretical, it (symphyseotomy) would very likely occur to any one meeting a case, like this now cited, where tedious labor, from obstruction about the pelvic brim, terminated *cito et jucunde, si non tuto*, after accidental rupture of the symphysis pubis.