

A CASE OF INTRA-UTERINE HYDROCEPHALUS.

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Reported to the Cook County Hospital Clinical Society, August 13th, 1891.

M. K., age thirty-seven, German, third pregnancy, entered ward 14, on the 13th of May, 1891, giving history of having menstruated last about October 1st, 1890; does not remember the date motion was first felt.

Examination elicited the usual signs of pregnancy. Fœtal heart tones, rate 145, heard on left and 5 cm. below umbilicus obliquely toward centre of Poupart's ligament. Family history good; personal history and physical examination good; had never been sick; says both the former pregnancies went to term; labors were short and not painful; the children were healthy and strong when born, but died—one at seven, the other at eight months after birth, but could not say what was the cause of death.

The pelvic measurements showed:

Distance between crests	29 cm.
Between ant. sup. spines	27 cm.
External conjugate	20 cm.

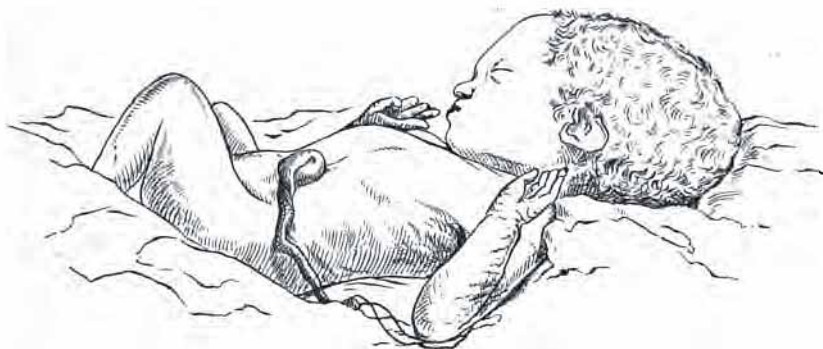
Vaginal examination showed that the promontory was out of reach, head not engaged. Over the abdomen the breech could be felt lying in the fundus uteri, back on left side, limbs on right side of uterus.

On the evening of August 2d irregular pains began, which increased in regularity, strength and frequency till 2 A.M. on morning of 3d, when I was called. Examination between pains revealed the vertex entering pelvis, but easily displaceable upwards; os dilated size twenty-five cent piece; bag of waters not yet ruptured; position L.O.A.

Examinations: 4 A.M., Os dilated to 5 cm. in diameter, pains stronger, head engaging but still high in the true pelvis. At 6 A.M.: Os fully dilated; head had not advanced, as far as I could judge, since previous examination.

Dr. A. E. Halstead, House Surgeon, called in consultation, agreed with me that forceps had better be applied. The heart tones were still distinct and clear, rate about 140.

Forceps operation: Chloroform to the anæsthetic degree; rectum and bladder emptied; 1:4000 corrosive sublimate douche; lithotomy position transversely across and hips to edge of bed; I applied the



Simpson pattern forceps after experiencing considerable difficulty; the only position in which I could lock them was the left oblique of pelvis, with one blade over the right temple, the other over left side of occiput. After having forceps slip twice and re-applying, I managed to bring the head on to the perineum and deliver, but not without laceration of that structure to the second degree.

The after-birth was expressed by Dr. Halstead in twenty-five minutes. A hot 1:4000 corrosive sublimate douche was given, and gr. ii. of ergotine hypodermically, when uterus contracted down firmly, and hemorrhage having ceased the patient was put to bed and experienced no inconvenience from the pressure beyond paresis of the rectum and psoas and iliacus muscles, which has since passed off. Passed her water with but little pain every four hours since; temperature remained normal and pulse below 90.

The child survived its birth but fifteen minutes, and had all the appearance of a hydrocephalic monster, the truth of which suspicion was verified at the post-mortem examination, when the measurements as given in the accompanying table were taken:

	Normal.	Hydrocephalic head.
Bi-Temporal	8 cm.	10½ cm.
Bi-Parietal.....	9.5 cm.	12 cm.
Occipito frontal	11.7 cm.	16½ cm.
Occipito mental.....	13 cm.	19 cm.
Sub-occipito bregmatic	9.5 cm.	13 cm.
Fronto-mental.....	8 cm.	12½ cm.
Sub-occipito breg. circum.	32 cm.	41 cm.
Occipito-mental circum.....		50 cm.
The anterior fontanelle		4½ × 4 cm.
The posterior fontanelle		8½ × 3½ cm.

By congenital hydrocephalus we understand an accumulation of serum ranging from 3viii.—4 lbs., generally in the ventricles, especially the lateral.

Hydrocephalus, according to Winckel, occurred 8 times in 15,000; Sickel, 11 times in 65,000, labors.

Winckel remarks, one woman may give birth to several hydrocephalic children. Castelli reports a case where a woman gave birth to two. An anomalous condition, we are told, is rarely discoverable in the woman; on the other hand, other anomalies of the children are often observed. Of 60 cases of hydrocephalus, 18 had lumbo-dorsal spina-bifida; also clubfoot, rickets, ascites, and finally large quantities of liquor amnii have been observed, most of these owing their origin to the same cause as the hydrocephalus; also other defects, such as diaphragmatic hernia, and absence of a kidney. These explain why so many hydrocephalic children die in pregnancy.

The presentation in this case was vertex, though we are told by Winckel that breech presentation occurs five or six times more frequently in the hydrocephalic than in ordinarily formed children.

The diagnosis, Playfair tells us, is by no means so easy as works on obstetrics would lead us to believe, and Winckel remarks that it is not made in the large majority of cases. I may add here it was not made in this case before delivery.

The physical signs (Winckel): The pelvis being without contraction in its diameters, the bladder and rectum empty.

The examination over the abdomen, especially in the aftercoming head; this failing to satisfy us we must introduce a hand and map it out.

In the forecoming head, we must examine with the whole hand.

The fontanelles are large, and often fluctuation can be made out. The sutures are wide; but this is by no means always the case.

Lastly, the head does not engage, if it be too large to enter the inlet.

Mistakes have been made by Bollinger and Winckel who mistook the fluctuating hydrocephalic sac for the membranes.

Also cases are on record where a distended bladder has been punctured by mistake for hydrocephalus.

The prognosis for child is grave; many die in utero. Of 60 reported cases 41 were still-born, 19 were alive; 15 of the 19 died before the age of 21.

The prognosis for the mother should be guarded. The dangers are hemorrhage, septicæmia, rupture of uterus; and fistulæ from pressure necrosis.

Treatment: Forceps, turning and puncture.

The forceps are ill adapted to the size and shape of the head, and are apt to slip; the maternal passages are very liable to suffer severe lesions, contusions and ruptures.

Turning, if the diagnosis is made, is too hazardous, and opens the chance of infecting the woman and puts the child in a less favorable position for what will probably be the ultimate treatment in the case, viz.: Puncture through a fontanelle.

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