

seems that if chronic hydrocephalus can be so greatly benefited by opening the brain and draining, under almost analogous circumstances, meningitis, when it reaches the stage of exudation, could be largely benefited by the same means. It is very evident, after watching a few cases, that the ultimate cause of death is not the studding of the meninges with tubercles, but the pressure on the brain resulting from the fluid induced by these, and if it were possible to relieve this pressure, there might be some chance for recovery. It is, moreover, the apparent hopelessness of this disease which has dissuaded surgeons from this procedure, a thing which they would very quickly do if the meningitis were simple and due to middle-ear infection.

Clinical Department.

A CASE OF SYMPHYSEOTOMY.

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THE operation of symphyseotomy was first done in America, March 12, 1892. It came with the best of credentials from Italy, where it was well known, and had for patron in this country Dr. Harris, of Philadelphia, who read papers on the subject in January, 1883, and January, 1892.

In the year 1892 there were in America eight cases. In the year from March, 1893, to March, 1894, approximately there were 31 cases. Dr. Harris estimated in January of this year that the world's record of cases in 1893 would reach 200. All of which goes to show the rapid growth in popularity of the modern operation.

It drives the operation of craniotomy on the living child quite out of the field, much reduces the territory of the successful modern operation of Cæsarean section, and greatly curtails the realm of induced labor.

As to safety, its mortality in proper cases done at the proper time is almost nothing. In cases done of necessity at an improper time, its mortality will be less than that of its competitors under the same circumstances. Six weeks ago I had occasion to do the operation.

The patient had entered the maternity ward of the Worcester City Hospital, September 13, 1894, for the purpose of consultation. This was during my vacation, and I did not see her at that time. She was seen by Drs. Greene, Ward, Delahanty and Gilman, who decided to elect symphyseotomy rather than to induce labor at about that time, thirty-five weeks after her last menstruation. She was advised to return the first of October. I saw her first October 3d.

The patient (Mrs. D.) was twenty-eight years old, Irish, well developed and well nourished, pregnant for the seventh time. She had miscarried once. Her first confinement was in July, 1887. She was in labor thirty-six hours, and was delivered by forceps of a living child. The child was small, asphyxiated, and resuscitated with difficulty. The second confinement was in October, 1888. Labor twenty hours. Tarnier forceps. Prolapse of cord. Child of medium size, still-born. The third confinement was in October, 1890. Labor seven hours. Tarnier forceps. Living child, which was small. The fourth confine-

ment was in 1892. Labor twelve hours. Tarnier forceps. Child, dead, weight nine pounds. In the fifth confinement the labor lasted forty-eight hours. Version. Still-birth. Child of medium or large size. Her last menstruation had ceased January 15th. She was now within three weeks of term. The pelvic measurements were:

Spines	22 cm.	8 $\frac{3}{4}$ in.
Crests	26.5 cm.	10 $\frac{1}{2}$ in.
Ext. cong.	19.5 cm.	7 $\frac{3}{4}$ in.
Cong. vera estimated	8 cm.	3 $\frac{1}{2}$ in. scant.
Width of symphysis		2 in.

If I had had the alternative of induced labor, I should have seriously considered it. As it was, there was no alternative, and labor at term must be awaited. At that time I would be guided by the nature of the child's head in deciding whether to make a trial of forceps before resorting to symphyseotomy. Version in a pelvis of this shape would be out of the question.

October 23d, at 7.30 A.M., labor began. Presentation O. L. A. Head of good size and firm structure. At 2 P. M., dilatation was complete, the membranes unruptured, and head free above brim. The membranes were ruptured between pains, an assistant making firm pressure on the head from above in order to prevent, as far as possible, the descent of the cord. At 4.15 the head was not engaged though the pains had been good. Patient was etherized and Tarnier forceps applied. Traction was made for fifteen minutes with no effect. Symphyseotomy was then done. The patient was lying across the delivery bed. She had been previously prepared: genitals shaved and parts internally and externally sterilized with soap and water, followed by bichloride solution. The vagina was again thoroughly cleansed with suds, rinsed and washed out with gauze wet in bichloride solution.

An incision was made from an inch above the upper edge of the symphysis, nearly to its lower edge. In order to introduce the finger behind the symphysis with comfort it was necessary to separate the attachments of the recti a little on each side. The tissues were then easily separated from the posterior surface of the bone. The urethra was drawn to the right by an assistant. The Galbiati knife was hooked under the lower edge. The lower angle of the wound was pulled down until the probe point of the knife was felt. The two inches of pubis was easily cut through, and the bones sprang a finger's breadth apart.

This was followed by free venous hemorrhage from the torn vessels of the richly supplied tissues under the arch — checked without difficulty by pressure with a wad of gauze. The forceps was again applied, and the head delivered in fifteen to twenty minutes. The cord was twice about the neck, tightly drawn, and so short that it could not be loosened. It was tied and cut, and the child immediately extracted. It was considerably asphyxiated, but was soon resuscitated by an assistant. It was a male — weight, eight pounds and ten ounces, length, twenty and one-half inches. The placenta was extracted by external pressure — weight two pounds, length of cord twenty-six inches. The passage of the head through the pelvis forced the bones two and one-fourth inches apart, and the venous hemorrhage was again free. During this time the sides of the pelvis were firmly supported by the assistants who were holding the legs. The soft parts bulged into the wound and rolled out of the vulva a good deal more than in a common forceps delivery. There was no laceration demanding suture. The

intrauterine douche of bichloride (1-5,000), followed by plain water, was given. The wound was sutured with deep stitches of silkworm-gut and superficial silk. No attempt was made to unite the bones, and no drain was used. The urethra was again held aside while the knees and trochanter were pressed together and three two-inch plaster straps bound about the pelvis. The patient was then turned into bed and a binder put on.

The only event of the puerperium, beyond a troublesome constipation, was a slight phlebitis causing some swelling and pain in the left leg. I think I was over-careful in keeping the patient on her back three weeks. In half that time it is safe to allow turning upon the side. At the end of three weeks a swathe with buckles took the place of the adhesive strips. At the end of the fourth week she walked, and a week later went home. I examined the joint at the end of three weeks, as the patient lay in bed. I could feel no intervening space. By flexing and abducting the legs I could feel a little motion. At the end of the fourth week, examining the patient standing and swaying from one foot to the other, I could feel perhaps one-third of an inch of motion.

The measurements of the child's head taken soon after the birth were:

		Normal.
Biparietal	4 3½
Sub. occipito bregmatic	4 3½
Occipito frontal	4½
Occipito mental	5½

A head above normal in all diameters.

A few words as to what can be gained by separating the pubic symphysis. Experiments made on the cadaver of pregnant women, as well as actual experience, have shown that the limit of safety in the separation of the bones is two and three-quarters inches. The increase of conjugate thus obtained is rather more than half an inch. It is estimated that a quarter of an inch of the biparietal diameters of the head bulges into the opening; also that it is compressed one quarter of an inch. These three factors together make up a full inch, so that with a normal head with a biparietal of four inches, we might expect easy delivery by symphyseotomy in a pelvis with a conjugate of three inches. If the head is small this could be reduced to two and three-quarters. This is regarded as the lowest narrowing adapted to the operation. A greater narrowing is better met by Cæsarean section. The upper limit is three and one-half inches (Morisani), or if the pelvis is generally contracted four inches (Garrigues).

Mortality of the Operation.—Among foreign operators, Zweifel of Leipsig nearly a year ago had had 23 cases with no death. Pinard's first death was his twentieth case. In Italy, from 1886 to 1893, there were 48 operations, with two deaths. "Up to date, there have been 60 operations in the United States, and four in Canada. There were 31 in 1893 in the United States, and there have been 18 this year. No death of a woman in the last 20, one death in the last 30, 2 deaths in the last 41. Six children lost in the last 41. No death of child or mother in the Canada cases." [These American statistics have been kindly furnished me by Dr. R. P. Harris, under date of December 3, 1894.] The deaths for the most part have taken place in women, very long in labor, and often septic at the time. When the operation is done under such conditions as I had, there should, of course, be no mortality. As

to the ultimate results, statistics are not so complete. Very few poor results are as yet published, and it seems assured that very few are to be anticipated.

FAIRLY EXTENSIVE CAUSES OF UPPER-LIP EXCISION; FREEDOM FROM RECURRENCE AT END OF THREE YEARS.

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IN September, 1891, Dr. Alex. O. Snowdon, of Peekskill, N. Y., referred to me Mr. H., a man of fifty years, who gave a history of having first noticed a small nodule at the middle of the right half of the upper lip one year previously. The growth had been slow and painless, and there had been no ulceration.

Examination revealed a hard swelling which occupied the right half of the upper lip, limited above by the ala nasi, extending a little beyond the median line to the opposite side and somewhat beyond the angle of the lip upon the cheek. The skin was thickened, but normal in color. The mucous membrane seemed normal. A small piece was removed, and examined by Dr. Farquhar Ferguson, who pronounced it epithelioma.

An operation was performed under ether. The entire mass was cut away, the incision including about half an inch of tissue outside the induration limit in all directions. This included the margin of the right ala nasi. A short incision was made out on the cheek, and the cheek tissues loosened. The remainder of the lip was loosened, and the flaps approximated and held in place by silver and silk sutures. There was prompt union throughout. Microscopic examination of the part removed showed a fine margin of healthy tissue in all directions.

The patient has since been seen at intervals of three months. There has been no evidence of recurrence. In November, 1894, Dr. Snowdon writes: "I saw Mr. H. to-day. There is no sign of recurrence."

The foregoing case is not exceptional. While cancer of the lip more frequently affects the lower, it is occasionally seen in the upper. The prognosis in the upper lip is better than in the lower, because of the lesser lymphatic connection. The case serves, however, to illustrate the advantage of wide excision. So far as we know to-day, excision offers the best prospect of cure in carcinoma. The key-note may be stated as: Early diagnosis, prompt and wide excision, and careful surveillance of the patient afterward. This is trite; but that it is not sufficiently understood is proven by the large number of cases subjected to palliative treatment which reach the surgeon too late to permit the thought of cure.

So in a recent report by the writer of cases admitted to his service at the New York Cancer Hospital,¹ it was shown that in 81 per cent. of these cases the disease had so far progressed that operative procedure would be purely palliative. In this article the proposition was made to classify cases of operable cancers as follows:

(1) Those in which the disease is so limited that it is thought reasonably probable that it is entirely excised and that the patient has a fair prospect of cure.

(2) Those cases in which the surgeon is doubtful, after removal, whether he has gone beyond the limits of invaded tissue.

¹ See New York Medical Journal, April 14, 1894.