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CASE OF SIAMESE TWINS—SLOUGHING OF THE VESICO
VAGINAL SEPTUM—OPERATION FOR VESICO
VAGINAL FISTULA—RECOVERY.

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THE following case is not without interest, since although vesico vaginal fistula is by no means uncommon, the cause which in this case induced the destruction of the septum, is sufficiently rare to be a matter of professional interest.

Mrs. D., of South Royalton, Vt., is a large healthy woman, forty-five years of age. She is one of three children, all living. Both parents are dead, the father having died with strangulated hernia and the mother with epilepsy.

Mrs. D. was married at the age of twenty-one and has been delivered of eight healthy, living children. All these labors were normal and of short duration, the child usually being delivered before the arrival of her physician. Menstruation has always been regular and normal save when interrupted by pregnancy.

In 1865 she again became pregnant. During the last two months of utero-gestation she was unable to sit, stand, or walk, except with great difficulty—and the lower extremities were anasaralous. She was

seized with labor pains Aug. 6th, 1866, and was attended by Dr. Whitcomb. At 2 o'clock A. M. the membranes ruptured. An examination now revealed the fact that there were twins, and that it was a foot presentation. The attending physician attempted to deliver by manipulation—but after six hours of vain effort he gave it up and called Dr. Moore in consultation. At this time the lower extremities of one child were delivered, while the feet of the other presented at the vulva. On consultation the medical men were unable to decide what the real cause of delay was—and a telegram being sent, my father, Prof. D. Crosby, visited the patient, arriving at 2.30 P. M.—the patient, meantime, being kept under the influence of anæsthetics.

He found the lower extremities of one child hanging from the vagina—the abdomen ruptured and the bowels protruding, the child evidently being dead. Being unable to move the child in either direction, he severed the body through the lumbar spine, thus removing the lower portion of the body. On carrying the upper half of the body upward towards the uterus, the feet of the second child descended. The lower half of the body was easily delivered, but finding it impossible to deliver the whole he severed this child in the same way as the other. By the use of the blunt hook one head was now brought down and delivered, when the remainder readily came away.

The two bodies were found to be connected by a broad band attached to their adjacent antero-lateral aspects, and extending from the level of the superior border of the sternum to the umbilicus. There was but one umbilical cord which entered the middle of the inferior boundary of the connecting band where it apparently bifurcated—sending independent vessels to each child. The connecting band, although broad, was thin, being apparently made up of a doubled layer of integument, with some adipose and connective tissue intervening. Both children were females—well formed and weighed, in the aggregate, *sixteen pounds*. There was nothing in the appearance of the connecting band to have precluded a division by the knife if the children could have been delivered alive.

The long continued pressure resulting from the impaction of the vagina caused sloughing of a large portion of the vesico vaginal septum.

Having recovered so far that her general health was perfect, she presented herself to me for an operation on the fistula. An examination with Sim's speculum revealed a large opening in the vesico vaginal septum—showing an extensive loss of tissue. The opening which extended obliquely across the septum was pyriform in shape—the fun-

dus of the pear pointing upward and to the right, while the neck terminated downward to the left in some firm cicatricial tissue adherent to the tuber ischii. This opening was a little over one inch and a half in its long diameter, while its greatest transverse diameter was an inch, gradually diminishing from above downwards.

The urine was, of course, constantly pouring through the opening in the vagina, rendering life a burden to the patient.

The bowels having been thoroughly evacuated by castor oil, followed by an injection, I commenced the operation on the morning of Dec. 27th, 1866, with the assistance of Dr. T. R. Crosby, and my former pupils, Drs. W. G. Hutchins and H. E. Marion, the latter having the main charge of the after treatment.

The patient was placed on her hands and knees with an abundance of pillows under the abdomen—the vagina being kept open by Sim's speculum and a strong sunlight admitted into the passage.

I commenced the operation by paring the edges of the opening throughout its circumference, the denuded surface being about three eighths of an inch in width—its inner edge being entirely outside of the vesical mucous membrane. This was accomplished by a patient dissection with curved scissors, scalpel and short pointed tenaculum. The hemorrhage was arrested by straight probangs—and as the patient submitted to the operation without an anæsthetic, she was permitted to rest for half an hour after the paring was accomplished and until all capillary oozing had ceased.

Not being provided at that time with the improved instruments which now simplify the operation so much, I found the introduction of the sutures a troublesome matter, especially on the left side near the tuber ischii, where the cicatricial tissue was very dense and unyielding. But by the use of needles of different curves, armed with fine silver wire, and held in needle forceps, I succeeded at length in introducing twelve sutures—being careful, however, not to wound the vesical mucous membrane.

A catheter had been retained in the bladder to serve as a conduit for the urine which was secreted with great rapidity during the operation. The bladder being now completely evacuated, the silver wires which had been inserted were carefully twisted one by one until the edges of the fistula were accurately coaptated.

The patient being placed on her back in bed was found to be in good condition notwithstanding the fatigue of the operation, which had lasted, with the delays, something over three hours. Nearly $\frac{1}{2}$ grain

of morphia was exhibited—and this was repeated twice in the twenty-four hours during the first ten days.

A silver catheter was retained in the bladder, and the patient fed on beef tea, porridge, etc.

During the third day and night there was a decided show of mucous in the urine. I consequently withdrew the catheter, substituting gum elastic tubes cut short so as to conduct the water into the urinal, but changing these often on account of the outer surface of the tubes becoming blistered. For a day or two the irritation about the bladder was less, but mucous soon began to show itself again—there being a constant deposit of it at the bottom of the urinal. On the sixth day after the operation the deposit was manifestly muco-purulent, but no moisture had, up to this time, shown itself about the ostium vaginæ. Owing to the difficulty of closing the lower portion of the fistula, I anticipated that some of the lower sutures would cut out—and the evident cystitis present—increased that fear. I was, therefore, not surprised on the ninth day to find some moisture escaping from the vagina, but as it was only in slight quantity I still hoped well for my patient.

On the tenth day Sim's speculum was introduced and the stitches removed. The lowest stitch had held, the next three had given way, but the remaining eight were firm and showed no signs of irritation. The edges of the remaining fistula were touched with nitrate of silver in the hope that granulations might partially at least close the opening. The fistula remaining was something less than half an inch in diameter, and when on her back the patient could retain her urine for some hours.

She was advised to return home and when the parts should become consolidated to return and submit to another operation.

April 10th, 1868, Mrs. D. returned in good health and I repeated the operation. The procedure was similar to the first operation, only the line of union was transverse instead of oblique as before. In introducing the sutures I used at this time a tubular needle. Seven stitches were set, the first three near the tuberosity of the ischium, on the left side, being introduced as near each other as possible. The patient's general treatment was the same as before. As the catheter had given rise to so much irritation I determined to have a catheter introduced every third hour, but in the meantime to let the urine collect in the bladder. The cystic irritation was much less than before, but still an appreciable amount of mucous accumulated in the urinal, and about the beak of the catheter. On the eleventh day I introduced

the speculum and removed the sutures. The two central stitches had cut out, the remainder having held firm. The opening was now only large enough to admit a very small pipe stem—and when irritated would contract to a mere point.

Mrs. D. now returned home and I requested her to have her medical attendant occasionally touch the fistula with caustic. This, however, was not done, and on the 26th of August following she again presented herself for another operation. This was readily accomplished, but on the twelfth day, when I removed the stitches, I found that the three at the centre of the wound had cut out leaving the fistula a little larger than before the last operation.

On the 3d of April, 1869, I performed the last operation, which completed the cure. In this operation I inserted the sutures with Emmett's needle, a small very short round needle with a very sharp point. This needle is armed with a strand of very fine silk doubled at its middle, the two ends being carried through the eye so that the doubled strand as it is passed through the edges of the wound shall terminate in a loop. A piece of silver wire six inches in length, having a short hook bent at one end, is hooked into the silk loop, and the hook being flattened by the forceps or fingers, the wire is easily drawn through. The hook now being detached from the silk loop is carried around the other portion of the wire so as to form a slipping noose—the long end of which is handed to an assistant to be held out of the way. When all the sutures have been thus set and looped, the Surgeon commences securing them. With a pair of long forceps secured by a slide, he holds the noose and the wire running through it firmly, at the same time cutting away the long piece of wire just outside the blades of the forceps. Drawing now the wire loop firmly by means of the forceps it is adjusted by pressing the wire on either side towards the line of the wound with a small tenaculum until the two strands touch each other and the edges of the wound are equably, but gently coaptated. A small shield with a slit at its centre receives the wires, which being bent over its edge, are rapidly twisted up to the edge of the shield, but no farther. The twisted ends being bent to one side by the aid of the tenaculum, are now divided by the scissors thus freeing the forceps.

If the sutures are adjusted so as to gently coaptate the edges of the wound and no more—then primary adhesion may be anticipated with great certainty. But if the tissues embraced by the wire are compressed a little too much the stitch will inevitably cut out.

I have been thus minute in describing the method of setting, ad-

justing, and twisting the sutures in these cases, because it is by far the best method ever devised, and because all may not have met with Dr. Emmett's admirable little book on Vesico Vaginal Fistula.

I used too Dr. Sim's excellent catheter made of flexible metal and shaped like the old English letter S. When properly adjusted this instrument rests on the posterior wall of the urethra, the upper extremity, the concavity of the curve being forward, resting within the bladder and just behind the symphysis pubis. This keeps the bladder constantly empty, and the fundus can never descend so as to impinge on the end of the catheter if it is properly adjusted.

If these catheters are changed twice a day and washed thoroughly in hot water cystic irritation will be reduced to its minimum, in fact will hardly show itself.

Having availed myself of these admirable improvements, I hoped that my patient would have a speedy termination of her woes.

On the third day, however, she complained of severe abdominal pain. Her pulse ran up to one hundred and twenty, the abdomen was swollen and tympanitic, and there was decided tenderness. The extremities were inclined to be cold and the features somewhat pinched. These symptoms were preceded by a chill. I gave the patient large doses of opium, left an anal tube in the rectum, and applied warm fomentations to the abdomen. On the following day a yellow creamy looking fluid began to ooze from the vagina in large quantities and looked like pus. After this discharge commenced the abdominal symptoms rapidly subsided. Cautiously introducing Sim's speculum I became satisfied that the discharge came from the uterus. On the following day the discharge declared itself unmistakably as a menstrual flow. I directed the patient to remain on her back while the assistant was instructed to introduce a gum elastic catheter into the vagina three times in the twenty-four hours, attaching a syringe by which he could draw out the fluid accumulated in the vagina. This was successfully accomplished, and at the end of five days the discharge ceased. As the patient had passed through a menstrual period only a few days before the operation, I could only attribute its recurrence to the latter cause.

On the twelfth day I removed all the stitches, and had the satisfaction of finding that the recovery was perfect, thorough union of the wound having occurred.

So much of the substance of the vesico vaginal septum was lost that the capacity of the bladder was seriously diminished so that it would contain only a small cup full of urine.

Mrs. D. is at the present time in excellent condition, and has perfect control of the bladder.