

perfect themselves in the various sutures upon the cadaver, or preferably upon living animals. I was deeply impressed with the importance of this in my own case, for, notwithstanding that I had done this operation upon the cadaver about ten times, four hours were occupied in the case which forms the subject of this paper.

VESICO-VAGINAL FISTULA SUCCESS- FULLY TREATED BY "KOLPO- KLEISIS."

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Mrs. D. F., æt. 52, was admitted into the hospital on the 28th of September, 1886, suffering from a vesico-vaginal fistula.

Previous history.—Patient had always enjoyed good health up to the time of her last confinement. She was the mother of eleven children, and most of her labors were very prolonged and difficult. In her last confinement, seven years ago, when the accident occurred which resulted in a vesico-vaginal fistula, she was in labor for nearly three days, and had to be delivered with instruments. Immediately after her delivery, she noticed her urine constantly dribbling away from her by the vagina, which caused her great annoyance and pain. This was the first intimation she had of anything being wrong. Since then her life had been a misery to herself and a source of annoyance to those around her. Two years after, a large tumor gradually appeared in the middle line, a little below the umbilicus, which proved to be a ventral hernia. Patient was bed-fast for nearly seven years.

Present condition.—When admitted, her general health was bad. She was very pale and anæmic, had no appetite, and suffered greatly from obstinate constipation of the bowels. The vulva, vagina, and perineum were extensively excoriated, and the skin and mucous membrane on those parts thick and indurated; the urine constantly ran away by the vagina in dribblets, much to the annoyance of the patient and those around her. Everything about her had a very disagreeable urinous odor. There was a large bed-sore situated over the base of the sacrum, and a large ventral hernia in the middle line, half way between the pubes and umbilicus. On examination per vaginam, the measurement between the two tuber-

ischii was found shorter than the average, and there was a general contraction of the pelvis, either of which conditions would account for her prolonged and difficult labors. There was a large aperture, connecting the vagina with the bladder, which made them appear as if they formed one cavity. The superior anterior part of the wall of the vagina was firmly adherent to its posterior wall, and covered over the os and cervix, so that nothing could be seen except the bright, florid mucous membrane of the bladder.

Treatment.—To improve her general health and sharpen her appetite, she was ordered an aperient pill, to be taken at night, *pro re nata*, and a quinine and mineral acid mixture, *ter in die*; and beside the regular hospital diet, she was given as extras, beef-tea, egg-nog and milk two or three times a-day, with a very moderate amount of stimulant. To obtain a healthy condition of the parts, warm water douches were freely used, per vaginam, four or five times a-day, with injections of corrosive sublimate (1 to 2000) as often. A sponge, soaked in an antiseptic solution, was constantly kept in the vagina, to absorb any urine that might dribble away. These sponges were frequently changed. This treatment, general and local, was continued until her health was good and the parts restored to a perfectly healthy condition, when an operation was determined upon. From the enormous size of the aperture and the great loss of tissue at the base of the bladder, it was evident that an operation with a view simply to close up the fistula would be futile, and that nothing short of complete obliteration of the vagina would succeed in completely and permanently relieving her suffering; and as the patient was past "the change of life," there was no very serious objection to the performance of such an operation.

The necessary preliminaries having been attended to, the operation termed "kolpo-kleisis" was performed on the 17th day of December, in the following way: The patient having been etherized, was put in the lithotomy position, with the pelvis raised on a level with her chest, an antiseptic sponge was introduced into the bladder, and the parts were well held apart by two assistants. A straight staff was introduced into the bladder to press down the anterior vaginal wall. Then the mucous membrane was removed from the anterior wall of the vagina, as near the lower margin