

existed in the *cul-de-sac* of peritoneum which occupied the anterior part of the prolapsed portion. Allingham has pointed out that the presence of a hernia in the anterior *cul-de-sac* can always be determined by the fact that its presence causes the opening of the gut to be turned towards the sacrum. The reduction of the hernia causes the orifice to be restored to its normal position in the axis of the bowel. (He states that, though the condition is not uncommon, he has never found it in children.) During movement of the bowels great straining occurred, and each evacuation seemed to be accomplished only after agonising efforts, during which the child moaned and cried piteously, while the face and head became covered with beads of perspiration; moreover, the tensesmus persisted for some minutes after evacuation, and apparently without diminution of the exquisite suffering.

*The Exstrophy of the Bladder.*—In the middle line, about the pubic region, was a hiatus in the skin, which was filled up with the bright red mucous membrane of the posterior surface of the bladder. This was continuous by means of a narrow area of scar tissue above, with the imperfectly formed umbilicus and at each side with the adjacent skin, while below it could be traced downwards as a groove or furrow to the tip of a broad flattened and shortened penis, the prepuce, glans, and dorsum of the penis being cleft so as to expose the under segment of the urethra. On drawing the tip of the penis downwards and forwards, the rudimentary prostate could be seen presenting the minute openings of the seminal ducts and the uterus masculinus. A short distance higher up on either side could be detected the openings of the ureters. These presented at the summits of small papillae, and around them were numerous excrescences of mucous membrane of a papillomatous character. At other parts the exposed bladder membrane was ulcerated, and the whole bladder surface was exquisitely tender, and bled readily though not very profusely. The surrounding skin showed very little irritation, though it was of course constantly bathed in the escaping urine. Both kidneys were greatly prolapsed and reached the iliac fossæ, as could readily be determined on examination *per rectum* under chloroform. The testicles, however, were both in the scrotum, which was somewhat shallow, cleft, and spread out as it were between the thighs. There was an entire absence of the bony pubic symphysis, the rounded ends of the horizontal rami being felt in each groin at a distance of about 1½ inch from one another.

The recti muscles were thus widely separated at their lower attachments. The flow of urine from the mouths of the ureters was intermittent. The surface could be dried with absorbent cotton and would remain dry for from fifteen seconds to half a minute. Then from one of the other ureter, but seldom from both simultaneously, a few drops of urine would well up with considerable rapidity as if propelled by a gentle peristaltic wave in the ureter, whose patent mouth could be plainly seen through the limpid fluid. A fine probe inserted into these openings passed almost directly backwards, showing that the ureter in its passage from the kidney first dipped over the pelvic brim in the normal manner before turning forwards towards its debouchement on the exposed bladder wall. It is important to bear this in mind, else in making the transplantation a kink in the ureter may be produced.

A study of this case seems to make it clear that the congenital condition of exstrophy of the bladder is due to a defective development—not solely of the ano-urogenital apparatus—but to a failure of junction between the lateral segments of that portion of the somatopleure whose duty it is to furnish the anterior surface of the body which extends from the umbilicus to the floor of the urethra, together with a cleft condition (anteriorly) of the allantoic vesicle. The resulting deformity is such as would be produced by dissolving away the anterior wall of the abdomen below the navel, the anterior wall of the bladder, the symphysis and body of the pubes, and the dorsum of the penis to the depth of the plane of the urethra. Thus there is exposed to view the posterior wall of the bladder with the mouths of the ureters, filling in the space between the widely separated recti muscles; the urethral aspect of the prostate with the minute openings leading to the uterus masculinus and the seminal ducts; and a groove or gutter representing the posterior or lower wall of the urethra. Of the two conditions in this patient calling urgently for surgical relief, the preci-