A CONTRIBUTION TO THE OPERATIVE MANAGEMENT OF STRICTURA URETHRAE IN THE WOMAN

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Vesico-vaginal fistulas in women result from post operative intervention or obstetrical trauma. They represent an absolute indication for operative intervention. Their treatment is entirely under the competence of the gynecologic surgeon. Depending on the localization of the fistula, suture is carried out of the fistulous orifice through vaginal, transvesical or transperitoneal approach. Severe vesico-vaginal fistulas and in particular those involving the urethral sphincter subsequent to obstetrical trauma are not uncommon and according to D. N. Atabekov, they are encountered in 25—30% of women in labor (parturients). Similar lesions are rarer as a sequel of past operative intervention. Neurotrophic disorders often occur after obstetrical trauma of the urethra and for that reason, even in instances of successful anatomical repair of the sphincter urethrae, subsequently permanent functional disorders persist. According to D. A. Ott, the reconstructive surgery of the urethral sphincter is a complete failure in 90% of the cases. The late sequelae of lesions of the urethral sphincter are incontinence of urine, due to loosening of the urethral sphincter or retention of urine brought about by the stricture of the urethra. In cases of insufficiency of the urethral sphincter, the following operative procedures are recommended: transposition fundi vesicae urinariae, suggested by Atabekov, sphincteroraphia urethrae — by Marion, retropubic cystourethropubofixation — Marshall or anterior cervicocystopexy after Perrin (quoted by Fey). If urethарl stricture occurs with vesical retention, systematic bougienage of the urethra is resorted to as a palliative treatment, and definitive cystostomy — as an ultimate alternative. In these cases formation of a new urethra after Marion, shifting of the urine into the colon or carrying out of cystoplasty might be resorted to if radical treatment is chiefly considered.

The employment of the intestinal tract as a reservoir for the urine, achieved through implantation of the ureters into the colon, is accompanied by a number of complications and therefore finds very few supporters.

The formation of a new urinary bladder (cystoplasty) is the most radical treatment of urethral stricture, but entails considerable trauma to the patient.

During 1963/1964, in the surgical department of the District Hospital in Varna, two women were admitted with late occurrence of strictura urethrae, subsequent to obstetrical trauma. We feel the report of the cases is justified because of the successful healing achieved as a result of application of an original operative procedure in two variants.

Case report I — A. R., female, 33-year-old, Turk of the village Kremena — district of Tolbuhin; history of illness No. 3915/23. IV. 1963, referred to

the Varna District Hospital for treatment. Past history: the present condition dates back in 1950; following delivery of a still-born child, she sustained substantial rupture of the genitalia. Later, urination was rendered difficult and several times she had complete urinary retention (stasis). She was twice admitted at the Maternity Hospital — Sofia, where she underwent plastic operation for the urethral stricture sustained after delivery. As a result of operative management, she felt well for several months and thereupon the urination disturbances recurred, the tint of urine was dimmed and occasionally purulent. Several days prior to admission she experienced pains in the lower portion of the abdomen, with frequent appeals for miction, though excretion of urine was effected by drops. General state: good general condition, pale skin and mucosa, afebrile, adequate heart function. Local state: the vagina is shallow, narrowed and deformed, with traces of operative scars along the labium pudendae, the clitoris is drawn to the rightside, the external urethral orifice is not seen, the attempt for catheterization failed to penetrate into the bladder due to the cicatricial stricture of the urethra, the bladder was palpated above the symphysis — taut, tender and painful. Laboratory examinations: hemoglobin — 64%, erythrocytes — 2980000, leukocytes in blood — 14300, urine — alb (+), sedimentation — leukocytes en messe, urea in the blood — 29.4 mgr %. Emergency cystostomy was carried out, but intraoperationem the bladder was found with considerably thickened and indurated walls. After improvement of the general condition, the venous urography provided evidence of adequate renal function and absence of pathological renal alterations. With diagnosis insuperable stricture of the urethra, lesion of the bladder sphincter and inflammated, fibrously retracted bladder, decision was taken to resort to neocystoplasty after the method of Gersuny, as modified by the authors. Following a 3-day preparation of the patient with antibiotics, milk diet and thorough cleansing of the gastro-intestinal tract, a medial incision was made under intratracheal anesthesia, beginning from the symphysis and reaching 3—4 cm above the umbilicus level. Good access to the pubic cavity was secured by the Trendelenburg position, the posterior peritoneal sheath was excised on both sides of the sigma (from the level of the promontory to second lumbal vertebra). A. mesenterica inferior was identified and ligated through the medial fissure — manipulation securing the maximal mobilization of the sigma from the posterior abdominal wall without undue effect on its circulation. At the promontory level the rectum was divided from the sigma and the mesosigmoideum was dissected between a. rectalis superior and the last a. sigmoidea up to the point of its separation from the a. mesenterica inferior. Next, through the medial cleft of the posterior peritoneum, the left and right ureters were exposed and dissected free from the surrounding tissues in the promontory area for a length of 7—8 cm. Both ureters were threaded with a silver loop measuring 1.5 cm in diameter. A lateral incision was carried out along the right rim of the rectum, long 3 cm, through which part of the right ureter was thrusted into the rectal lumen together with the threaded metallic loop without impairing the ureteral continuity. The rectal incision above the drived into the rectum ureter was closed in two layers, reinforcing the entry and exit sites of the ureter into the rectum with single silk stitches between the rectal serosa and ureteral adventitia. The left ureter was likewise drived into the rectal lumen together with the threaded metallic loop through the open proximal end of the rectum, accor-

dingly sutured in two layers over the ureter (Fig. 1). The entry and exit points of the left ureter drived into the rectal lumen were similarly reinforced by single serous-adventitial sutures. Thereafter the cavum Douglassi was satisfactorily exposed and the peritoneum, on the left of the rectum, was dissected in a sagittal direction over a length of 3—4 cm. An other incision was made, with the patient in gynecological position, to the left of the anus between skin and mucosa. The anal mucosa was anchored by a forceps and in a semi-sharp, semi-blunt fashion was detached in deepness from the muscular layer of the rectum and thereupon, bluntly, with a finger, the muscular layer of the rectum and m. levator ani were ruptured and through the cleft thus created in the cavum Douglassi the pubic cavity was penetrated. The mobilized sigma was pulled through the channel thus formed in a sufficient degree, suturing the edges of its cut surfaces with single stitches to the anal mucosa and skin. Next, a thorough peritonization was carried out of the denuded retroperitoneal space, tetracycline solution was infused into the abdomen and the abdominal cavity was closed by a direct suture. In the postoperative period diuresis through the cystostoma was maintained about 1 litre, the blood urea rised to 109 mg % with subsequent slow return to normal. The temporary fecal incontinence was definitely overcomed about the 30th postoperative day. On the 40 th day after the operation, the isolated rectum was penetrated with the aid of a rectoscope, the metallic loops threaded on the ureters were consecutively pinched and by passing high frequency electric current the loops were cut. Since the very same day spontaneous miction through the rectum occurred, at the biginning hourly, and later on — every 3—4 hours with effective urine retention. The patient was discharged in good general condition. The check-up examination carried out three months later revealed good general condition, normal body temperature, preserved apetite, daily defecations and mictions every 3—4 hours, effective retention of urine and feces, blood urea — 19.6 mg %; the venous urography disclosed data for satisfactory function of both kidneys with slightly manifested dilatation of the renal pelvis and ureters.

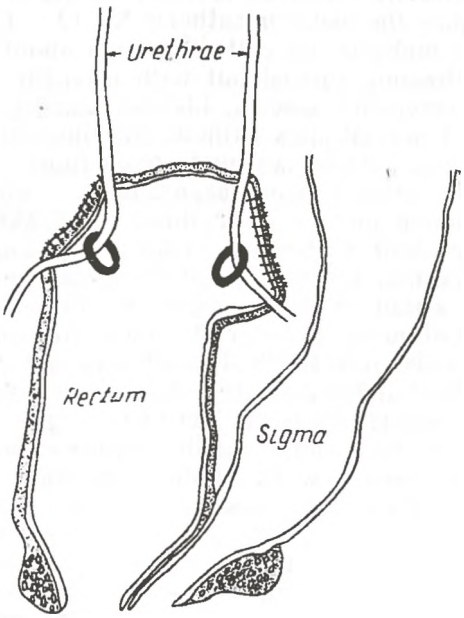

Fig. 1

Case report II — patient R. D. is concerned, aged 47 of Varna, history of illness No. 6104/21. V. 1964, admitted for treatment at the Varna District Hospital. Past history: the present illness dates back 18 years ago, when following delivery, she sustained rupture of the vagina. Later she experienced difficulty during urination; following miction the bladder was not com-

pletely emptied. Retention of urine repeatedly occurred and catheterizations were frequently carried out. She was repeatedly treated for the stricture of the urethra sustained by means of dilatations and surgical methods, but the results were transitory. General status: the patient in good general condition, afebrile, external urethral orifice is punctiform, narrowed, hardly letting pass the metallic catheter No. 12 — Charr; the bladder is palpated above the symphysis, on catheterization about 200 cc residual urine was found. Cystoscopy carried out with infantile cystoscope revealed urinary bladder of increased capacity, bladder mucosa strongly hyperemized, ureteral orifices at normal sites without pathological changes. The venous urography furnished data for adequate renal function and absence of pathological changes. Laboratory examinations: urine — alb. (+), sediment — leukocytes en messe; blood picture — erythrocytes 3500000, hemoglobin 80%, leukocytes 5400, protein in the blood 7.62 gr %, blood urea 19.6 mg %, hepatic tests-within normal limits. Operative management was embarked on after the second variant of the modified by the authors cystoplasty method of Gersuny. Following appropriate antibiotic and purgative preparation of intestines, under intratracheal anesthesia and in gynecological position of the patient, medial inferior laparotomy was carried out, the posterior peritoneum was dissected on both sides of the sigma, a. mesenterica inferior was ligated and cut, thus achieving the required liberation of the sigma from the posterior abdominal wall. At the promontory level the rectum was excised from the sigma and the mesosigmoideum was cut between a. rectalis superior and the last a. sigmoidea up to the point of its separation from the a. mesenterica inferior. Next the bladder was dissected open over a length of 3 cm frontalwards, in the vertex area. Termino-lateral anastomosis was performed with a double-row suture between the open proximal end of the rectum and the opening created into the bladder. Thereafter, in the manner already described in the first variant, the freed colon sigmoideum was passed through and fixed into the anal region. A permanent catheter was inserted into the bladder through the urethra for seven days. The postoperative period was uneventful, on the 5th day the patient received spontaneous defecation, and on the 7th day after removal of the urethral catheter — spontaneous miction via the rectum. Three weeks after the operation the retention of urine and feces was effective; the patient had defecations daily and mictions through the isolated rectum every 3—4 hours. On the check-up examination made three months later, the patient was in high spirits, with unimpaired defecation and miction and no residual urine in the bladder.

In the opinion of the authors, the operative technique herein described for treatment of neglected (inveterate) stricture of the female urethra has a number of advantages in comparison to the numerous heretofore described procedures, but definitive assessment of its value will be made only after its application to a greater number of patients.

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ВКЛАД В ОПЕРАТИВНОЕ ЛЕЧЕНИЕ STRICTURA URETHRAE У ЖЕНЩИНЫ

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РЕЗЮМЕ

Автор сообщает два случая с послеродовым запущенным сужением уретры, вылеченных оперативно после применения метода цистопластики по Gersuny с известным изменением в двух вариантах. Видоизменение состоит в наложении лигатуры на a. mesenterica inferior, проведении colon sigmoideum слева от прямой кишки и включении пассажа мочи в прямую кишку путем двухэтапного внедрения мочеточников в просвет прямой кишки или через ректо-везикальный анастомоз.