ORIGINAL PAPER

VESICOVAGINALS FISTULAS: THE EXPERIENCE OF OUR CLINIC ON SURGICAL TREATMENT AND RESULTS

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Abstract

Vesicovaginals fistulas are the most common type of urogenital fistulas resulting after radical hysterectomy with or without radiotherapy. In most cases, surgery is necessary for healing. The present study was conducted over a period of 5 years. In all cases, the diagnosis was made on medical history, a complete clinical examination, intravenous pyelography and cystoscopy. Surgical closing technique of fistula tract could be applied in 28 cases (68.29%), out of which in 9 (22%) patients the exicision of the fistula tract and separate suture of the bladder and the vagina were performed while in 19 (46.3%) patients a flap was interposed too. All 25 patients who presented fistula after radical hysterectomy were feasible to surgical treatment of demolition of fistula and only 3 of 16 (18.75%) of the cases of hysterectomy and radiotherapy had indication for surgical closing technique of fistula tract. In 4 cases (9.7%) an external urinary diversion as the only therapeutic solution was performed. In 3 cases (7.3%) a percutaneous nephrostomy was inserted. Two patients (4.8%) presented vesicovaginal fistula and rectovaginal fistula as well. 24 (85.71%) of the 28 cases that have benefited from surgery remained continent, without loss of urine vaginally after the removal of urethro-bladder catheter. In 13 (31.7%) cases the success could not be obtained due to radiotherapy associated with hysterectomy. In the 25 cases where radiotherapy was not enforced, the success rate of surgery was 92%, while in patients who have benefited from radiotherapy too it goes down drastically (33%).The surgical closing technique of the vesicovaginal fistula has a very high success rate. The success of the operation can be obtained from the first surgery. The associated radiotherapy has a big influence in the approach of this pathology surgery.

Keywords*: vesicovaginalis fistula, radiotherapy, urethro-bladder catheter*

Introduction

Genital fistulas lead to social and psychological stress by damaging the quality of life[1]. Vesicovaginal fistula, or VVF, is an abnormal fistulous tract extending between the bladder and the vagina but rectovaginal fistulas may appear too, together or separately, leading to an uncontrollable loss of urine and / or faeces[2]. Vesicovaginal fistulas are the most common and frequently urogenital fistulas. Although the magnitude of the obstetric fistulas was reported to be declining in industrialized countries, they are still a major problem in developing countries, occurring after gynecological procedures, for example, radical hysterectomies[3]. In most cases treatment is surgical. Amazingly, fistulas may close spontaneously[4].

Materials and methods

The study was conducted in the The Urology Hospital "Prof. Dr. Th. Burghele", Bucharest, between January 2009 and December 2013. This is a retrospective observational study that included all the women who presented in our clinic during this period with urogenital fistula after radical hysterectomy with or without associated radiotherapy. A total of 41 patients with urogenital fistula were included in this study with age limits between 28 and 80 years, with an average of 49 years. Cystoscopy and pyelography were performed in all cases. In addition, bimanual vaginal examination was performed for rectovaginal fistulas diagnosis[6].

In this study we analyzed the following parameters: the cause of its advent, the influence of radiotherapy, surgical approach and results. In most cases, where surgery was indicated, a transabdominal approach in Trendelemburg position was performed, benefiting of a large mobilization and opting for a single layer closure of the bladder wall with or without interposition of the omental flap[7]. Foley catheters were removed after 10-14 days postoperatively. The success of the operation was considered in the absence of urinary loss vaginally after the removal of the urethral catheter.

Discussions

The majority of patients (87.8%) were at the first surgical intervention repair at the time they were admitted in the study. 4 cases (9.7%) were at the second or even the third surgery and one patient was excluded after full clinical examination due to associated comorbidities[8] (Figure 1).

25 cases (60.91%) presented radical hysterectomy and 16 patients (39.1%) required postoperative radiotherapy. We noticed that a number of 28 cases (68.3%) had surgical indication for closing the fistula. 19 (46.3%) patients benefitted of surgery with omental flap interposition and in 9 cases (22%) a fistula closure without using a flap was chosen. The transabdominal surgical approach was performed for all these cases (Figure 2).

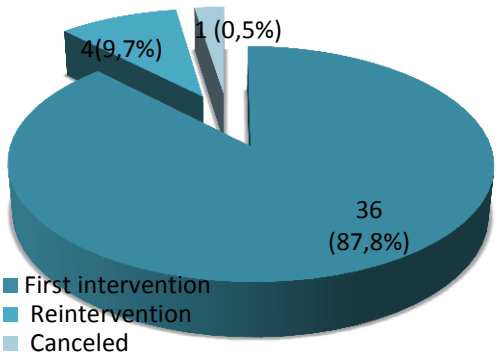

Figure 1 – Distribution of patients by number of surgery interventions

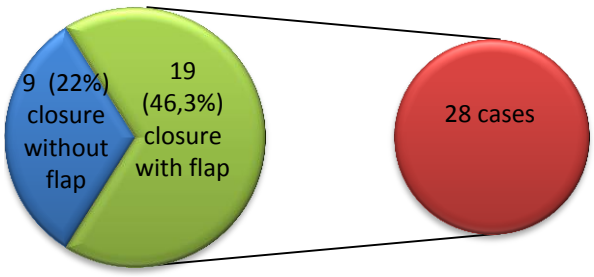

Figure 2 – Distribution of patients by surgery type

Although in most cases curative surgery could be the option, in some cases the therapeutic alternatives were the solution. In one case (12.91%) fistula closed spontaneously (the patient was bladder catheterised with a 16 Ch Foley catheter over a period of 3 months). Two patients (4.8%) required ureteral reimplantation after closing the fistulous tract. In 3 cases (7.3%) it was necessary to mount a permanent nephrostoma. In 4 cases (9.7%) the solution was performing an external urinary derivation. Two patients (4.8%) experienced VVF and RVF (Figure 3).

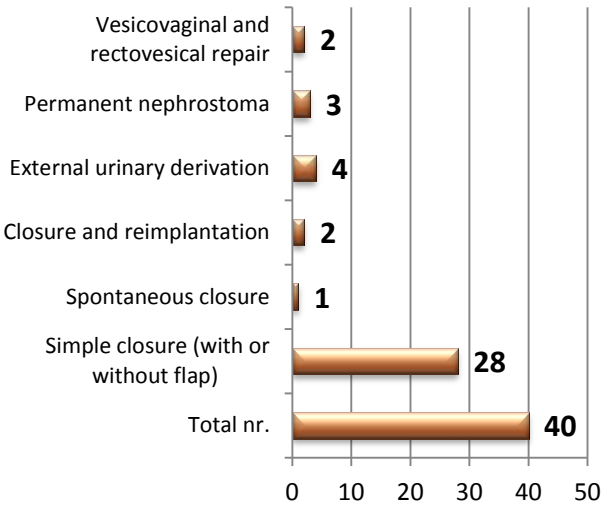

Figure 3 – Distribution by therapeutic alternatives

All 25 cases that have been submitted only for radical hysterectomy had surgery indication to close the fistula and only 3 of 16 cases (18.75%) of patients who also had radiotherapy, had surgical indication. Two patients (8%) from the group with radical hysterectomy continued to have urinary loss vaginally after surgery while in the group of patients with radical hysterectomy and radiotherapy, the surgical failure rate was 66%. 23 of the 25 patients (92%) of the group with only hysterectomy were considered an operation success and the absence of urinary loss after urinary catheter removal was confirmed and only 1 patient (33%) of the group with radiotherapy was considered an operation success (Figure 4).

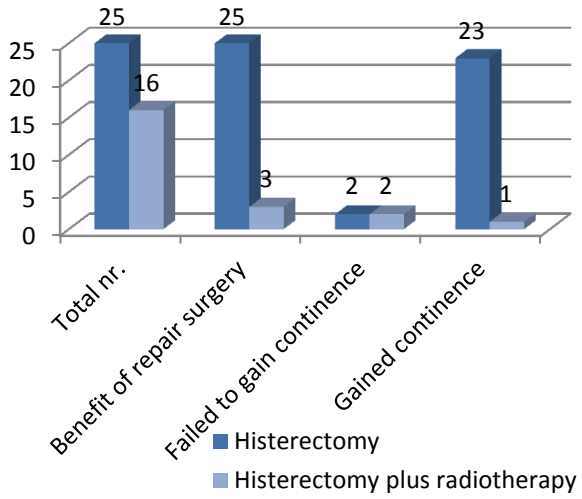

Figure 4 – Distribution of patients by therapy results

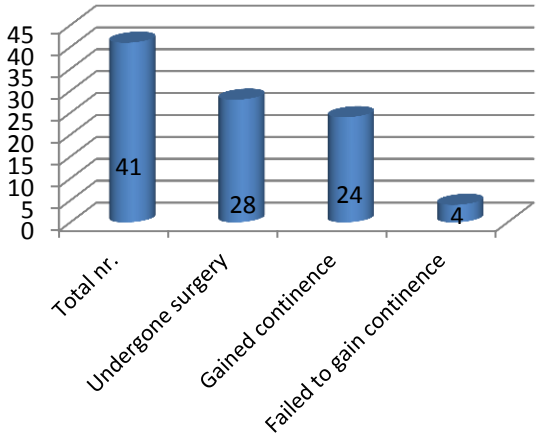

Figure 5 – Distribution of patients by fistula closure

We can notice that where radiotherapy was not applied, operation success was significantly higher (92%) and the success rates drop drastically at the patients who present hysterectomy plus radiotherapy, only 1 in 3 (33%) patients postoperatively can declare the absence of urinary loss vaginally.

28 patients (68.3%) underwent surgery for vesicovaginal fistula closure. 24 of the 28 (85.7%) did not present urinary loss vaginally after catheter removal while 4 cases (14, 3%) still presented a vesicovaginal fistulos tract (Figure 5).

Conclusions

Genital fistulas remain an important public health problem. After fistula formation, surgery is the preferred treatment, and spontaneous closure is exceptional. Genitourinary fistulas operation success was reported between 33% and 92%, a major factor in expressing these results is radiotherapy. Success can be obtained from the first surgery.

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