

# Cystocele with Concomitant Vesicovaginal Fistula

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## INTRODUCTION

Vesicovaginal fistula (VVF) is the most common urogenital fistula. Obstructed labor and pelvic gynecological surgery are the most common etiologies. We present a 78 year-old woman with VVF which resulted from a prolapsed cystocele with long-term erosion of the anterior vaginal wall. Successful repair was performed through the transabdominal approach. The VVF did not recur after a follow-up of one year.

## BRIEF HISTORY

A 78 year-old woman came to our clinic with continuous urine leakage from the vagina for several months. The leakage had become aggravated recently. She denied previous pelvic gynecological surgery and genitourinary instrumentation. A pelvic examination revealed a Gr. III cystocele with a fistula located along the anterior vaginal wall (Fig 1), and significant inflammatory changes surrounding the fistula. An endoscopic examination confirmed a fistula over the bladder base. There was no tumor within the bladder cavity. There was no genital neoplasm. A urinalysis revealed pyuria, and urine cytology showed no malignant cells. The patient was given an indwelling catheter and intravenous antibiotics for one week. Then she underwent transabdominal repair of the VVF and interposition of the omentum, with a concomitant Burch procedure to correct the cystocele. There was no recurrent VVF after a follow-up of one year.

## DISCUSSION

VVF is the most common type of acquired fistula of the urinary tract [1]. In the developing world, where routine perinatal obstetric care may be limited, VVF most commonly results from prolonged obstructed labor due to cephalopelvic disproportion, with resulting pressure necrosis from the baby on the anterior vaginal wall, bladder, bladder neck and proximal urethra. Risk factors include young or old maternal age and primigravid status [2]. In the industrialized world, the most common cause (>75%) of VVF is injury to the bladder during gynecologic, urologic, or other pelvic surgery [3]. In this case, the VVF resulted from a high-grade cystocele with long-term erosion of the vaginal wall and poor hygiene. A small, pinpoint fistula may present with intermittent wetness that depends on position.

When a large VVF is present, the patient may not void at all and simply have continuous urine leakage into the vagina. A trial of indwelling catheterization and anticholinergic medication for at least 2 to 3 weeks may be warranted in selected patients with newly diagnosed VVF, as spontaneous healing may result [4]. Patients with small epithelialized fistulas may benefit from minimally invasive treatment with electrocauterization of the fistulous tract and cauterization of the VVF [5]. However, in patients with a thin vesicovaginal septum, a large VVF, or significant inflammation about the fistulous tract, electrofulguration risks treatment failure and the possibility of enlarging the fistula.



**Fig. 1.** Gr.III cystocele with vesicovaginal fistula (VVF) (arrow).

Surgical repair for a VVF may be performed through a transvaginal or transabdominal (transvesicle) approach. Each approach had merits and there is no "best" approach for all patients with VVF because many factors have an impact. The optimal approach to an uncomplicated VVF is usually the one that is most successful in the individual surgeon's hands [6]. In this case, we repaired the VVF through a transabdominal approach. Interposition of the omental flap could be performed at the same time with concomitant repair of the cystocele by a Burch procedure. This approach may avoid the risk of infection from the transvaginal approach in cases of poor vaginal hygiene.

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