

Case Report

**VESICOVAGINAL FISTULA SECONDARY TO VAGINALLY INSERTED
SUBSTANCE FOR THE TREATMENT OF INFERTILITY: A CASE
REPORT AND REVIEW OF LITERATURE**

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ABSTRACT

Vesicovaginal fistula (VVF) resulting from vaginal herb insertion for the treatment of gynecological diseases is very rare, with around four cases reported in literature. We describe a rare case of VVF after vaginal insertion of some unknown medication in a 30 years aged woman with primary infertility. Herein we offer clinical insights into the diverse etiology of VVF and grave risks associated with some traditional malpractices.

Keywords: Vesicovaginal Fistula, Medication, Infertility, Primary

INTRODUCTION

Vesicovaginal fistula (VVF) is a debilitating condition that is associated with great physical and psychosocial disability. It is a rare entity nowadays and is usually seen as a complication of obstetric and gynecologic procedures. Obstetric trauma is the most common cause in developing countries, compared to iatrogenic VVF secondary to pelvic surgeries in developed nations. (Hallner *et al.*, 2017) The less common causes are sexual trauma, penetrating injuries, retained foreign bodies and pessaries. (Stamatakos *et al.*, 2014) VVF resulting from vaginal herb insertion for the treatment of gynecological diseases is very rare, with around four cases reported in literature. We describe a rare case of VVF after vaginal insertion of some unknown medication in a 30 years aged woman with primary infertility. The literature review and uncommon etiologies of VVF are discussed.

CASE

A 30 years old nulliparous lady, a graduate from rural background, had primary infertility for 6 years. She gave history of irregular treatment for infertility from some local untrained birth attendants in the village. She presented to gynecology outpatient department with complaint of continuous dribbling of urine for three days after insertion of some medicated cotton swab into her vagina consecutively for 2 days by an untrained birth attendant. She was asked to have regular intercourse with her husband after 2 days. After this treatment, she had severe burning sensation in vagina and developed continuous urinary leakage after sexual intercourse. There was no history of any associated bowel symptoms or other co-morbid illness. Her general physical and abdominal examination was normal. On local examination, external genitalia was normal. Per speculum examination revealed pooling of urine on the speculum. There was an around 2.5x2.5 cm defect in anterior vaginal wall mainly in vault juxtaposed with cervix and bladder mucosa was seen through the defect (Figure1). On vaginal examination, same defect was felt. Per rectal examination was normal. Ultrasound pelvis was unremarkable. She was referred to urology department for further management where cystoscopy showed a single 2.5x2.5 cm fistula just above the bladder neck and abdominal repair of VVF was done successfully.

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Figure 1: Pooling of urine on sims speculum through a vesicovaginal fistula on anterior vaginal wall juxtapsed to cervix

DISCUSSION

A VVF is an abnormal fistulous tract between the bladder and vagina, causing continuous urinary incontinence. It is a relatively uncommon but one of the most dreadful complication in obstetrics and gynecology with a significant negative impact on women's quality of life.

The etiology of VVF is diverse, it may be congenital or acquired. Congenital VVF is very rare and usually associated with other malformations. Obstructed labor is the most common cause of acquired VVF in developing countries. In western world, iatrogenic causes including gynecologic, urologic or other pelvic surgeries constitute the major etiology (Hallner *et al.*, 2017). The other causes are advanced pelvic malignancy, radiotherapy, infections and inflammatory diseases, foreign bodies, sexual trauma and vaginal laser procedures (Stamatakis *et al.*, 2014). Among the rare causes, a case of VVF following nail penetrating trauma in a young woman after first intercourse has been reported (Asl Zare *et al.*, 2014). Another unusual case of VVF after voluntary sexual intercourse in a woman with normal vagina has also been described (Singhal *et al.*, 2007). Traditionally, certain kind of vaginal herbs or substances were used for treatment of various gynecological disorders like fibroids, prolapse, infertility etc. But these substances leading to development of VVF is extremely rare. To the best of our knowledge, only four such types of VVF have been reported in literature and only one such case for the treatment of infertility (Basak *et al.*, 2008; Igberase *et al.*, 2009; Adaji *et al.*, 2012; Paul *et al.*, 2013).

Basak and Bag has first reported a case of VVF after application of a corrosive substance in a 62 years old woman with long standing pelvic organ prolapse. Both the prolapse and fistula repair was done successfully in a single operation (Basak *et al.*, 2008). Another case of a large VVF has been described in Nigeria in a 26 years old female after insertion of a herbal substance into her vagina to cure uterine fibroids. Fistula repair was done successfully three months later (Igberase *et al.*, 2009).

Adaji *et al.*, described a case in which vaginal herbs were inserted in a young 38 years old woman for the treatment of uterine fibroids. The preparation was left in vagina for two weeks after which patient noticed involuntary loss of urine from vagina. She underwent first attempt of VVF repair through vaginal route along with abdominal myomectomy which was not successful. Later she underwent extraperitoneal transvesical repair of fistula which subsequently healed (Adaji *et al.*, 2012).

Paul *et al.*, has described a case in which an unknown herb was inserted serially for 12 days in a young woman for the treatment of primary infertility. After 7 days, she had high grade fever, burning micturition followed by continuous urinary leakage. She was found to have a 3x2 cm trigonal fistula near the bladder

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neck which was repaired transvaginally with Martius flap interposition. She underwent a repeat surgery due to a small residual fistula which was repaired successfully (Paul *et al.*, 2013).

In the present case, local vaginal application of medicated cotton gauze might have caused severe inflammatory reaction in vagina resulting in fistula formation. In this modern era of health, it is miserable to find such a devastating complication in a young woman for a treatable condition like infertility. Through this case report, we would like to offer clinical insights into the diverse etiology of VVF and grave risks associated with some traditional malpractices. Due to illiteracy, poverty, social pressure and misguidance, people commonly adopt a path of local non-medical practices. We, hereby stress on the importance of creating awareness among public for improved accessible health services. Health care systems should have proper supervision and regulation over these traditional practices to minimize such health hazards.

REFERENCES

- Adaji SE, Bature SB, Shittu OS (2012).** Vaginally inserted herbs causing vesico-vaginal fistula and vaginal stenosis. *International Urogynecology Journal* **24**(6)1057-8.
- Asl Zare M, Esmailnia S and Kamalati A (2014).** Nail penetrating trauma: a rare cause of vesicovaginal fistula *Chinese Journal of Traumatology* **17**(6)351-353.
- Basak S, Bag T (2008).** Corrosive-induced vesicovaginal fistula with procidentia: a rare occurrence. *International Urogynecology Journal* **19** 1719–1721.
- Hallner BG, Hebert KL and Winters JC (2017).** Transvaginal repair of urogenital fistula. In: *Textbook of Female Urology and Urogynecology* 2, 4th ed. (CRC Press, Boca Raton, United States) 1173-80.
- Igberase GO, Gharoro EP, Ebeigbe PN and Mabiaku T (2009).** Vesicovaginal fistula following insertion of herbs in the vagina by a traditional medical practitioner in the Nigerdelta of Nigeria. *Journal of Obstetrics and Gynaecology* **29**(4) 356-8.
- Paul S, Singh V, Sinha RJ, Kumar A (2013).** Vesicovaginal fistula due to vaginal herb for primary infertility: could it be devastating? *Case Reports 2013* bcr2013200563.
- Singhal S, Nanda S and Singhal S (2007).** Sexual intercourse: an unusual cause of vesicovaginal fistula. *International Urogynecology Journal and Pelvic Floor Dysfunction* **18**(5) 587-8.
- Stamatakis M, Sargedji C, Stasinou T and Kontzoglou K (2014).** Vesicovaginal fistula: diagnosis and management. *Indian Journal of Surgery* **76** 131–6.