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Case Report Open Access

Rectovaginal Fistula Secondary to an Erosive Pessary: Case Presentation and Literature Review

Ozuner G* and Elagili F

Department of Colorectal Surgery, Digestive Disease Institute, Cleveland Clinic, Cleveland/OH, USA

***Corresponding author:** Gokhan Ozuner, Department of Colorectal Surgery, Digestive Disease Institute, Cleveland Clinic, 9500 Euclid Ave. A30, Cleveland, OH 44195, USA, Tel: (216) 444-6672; Fax: (216) 445-8627; E-mail: ozunerg@ccf.org

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Abstract

Purpose: Complications of misuse and neglect of pessaries and treatment is discussed. The vaginal pessary is a useful tool for the management of a number of urogynecologic conditions. Although, the pessary is a safe device, it is still a foreign body and complications may occur. Serious complications are rare but can be difficult to manage.

Case: An unusual case of a rectovaginal fistula secondary to pessary erosion is reported. This is the seventh reported case of an isolated rectovaginal fistula from a pessary.

Conclusion: Indications and results of misuse and neglect of pessaries are discussed. Clinicians should be aware of such complications and appropriate precautions should be undertaken to prevent potential problems.

Keywords: Vaginal pessary; Complications; Rectovaginal fistula

Introduction

The pessary is one of the oldest medical devices used for the nonsurgical management of various gynecologic and urologic conditions. Pessary use has declined over the last few decades due to improvements in medical technology and surgical techniques. Current indications for pessary use include women awaiting definitive surgical repair, treatment for an unsuccessful surgical repair, patients who are not surgical candidates or who prefer nonoperative treatment for pelvic organ prolapse [1-7]. It is gaining popularity among women with stress urinary incontinence and in younger women interested in child bearing [8-13]. Pessaries have also been used in the management of neonatal prolapse which may be seen with neural tube defects [14]. Although the pessary is an extremely safe device, it is still a foreign body and complications can occur with neglect or poor follow-up. Serious complications due to an erosion of a pessary are rare. These include vesicovaginal fistulas [15-18], cervical entrapment [19], pessary incarceration [20], vesico-ovarian fistula [21] and intestinal obstruction [22,23]. Only six cases of an isolated rectovaginal fistula secondary to a neglected pessary have been reported in the medical literature [24-29]. Another case of a rectovaginal fistula secondary to an impacted Gellhorn pessary is described and the literature pertaining to this complication is reviewed.

Case Report

An 82 year old patient reported to her Gynecologist for removal of a pessary which had been inserted approximately 5 years ago due to uterine prolapse. The patient complained of vaginal bleeding and reported symptoms of stress urinary incontinence as well. She denied any bright red bleeding per rectum, change of bowel habits or any other gastrointestinal symptoms. Her past medical history was significant for cardiovascular disease and hypertension. During attempted removal of the pessary, it was noted that the pessary was impacted and had eroded into the rectum. On rigid proctosigmoidoscopy a pessary protruding into the rectum located 7 centimeters from the anal verge was visualized. One week later the patient was taken to the operating room, and she underwent a colonoscpy, vaginal removal of an impacted Gellhorn pessary, a transanal repair of the rectovaginal fistula which measured approximately 2.5 centimeters and a laparascopic loop ileostomy for diversion. One month later a gastrografin enema was performed to assess the repair. This revealed a persistent rectovaginal fistula. Therefore, a second transanal repair was attempted. This was unsuccessful and five months after her original repair the patient underwent a low anterior resection with takedown of the rectovaginal fistula, a coloanal anastomosis and a coloplasty. Her loop ileostomy was closed six weeks later. The patient is asymptomatic for the last five years.

Discussion

A pessary is a good nonsurgical option as temporary or definitive therapy for symptomatic genital prolapse in selected patients. Hippocrates described several treatments for genital prolapse, including a pomegranate soaked in vinegar which was used as a vaginal pessary [4,5]. With improvements in medical technology and surgical techniques, its use is becoming less popular. In general, it is considered to be a safe and simple form of therapy. There are approximately 20 types of pessaries in use today; however, over 200 different types have been developed in the past [4]. Pessaries can be used as a temporary measure prior to surgery or as a permanent alternative to surgery for pelvic floor support defects such as vaginal prolapse and urinary incontinence [1-10]. They can also be used as a diagnostic test to predict which patients will be helped by surgery. If realignment of the pelvic organs to the normal anatomical position provides relief of symptoms, the likelihood of surgical success is increased [11]. Other uses of pessaries include stress urinary

incontinence, incompetent cervix, correction of retroverted or incarcerated uterus, and they can even be utilized for the treatment of exercise urinary incontinence [6,12,13]. Neonatal use of pessaries has also been described in the literature [14]. Appropriate patient selection, proper fitting and continued post insertion care is important in the management of patients who are fitted with this device. Physicians should stress to the patient the need for routine care and maintenance of pessaries in order to prevent complications. Ideally, pessaries should be removed and cleaned every 6 weeks [2].

Common complications of pessary use include vaginal irritation, ulceration, allergic reactions, leukorrhea, bleeding bowel and bladder dysfunction [3,5,7]. Occasionally, a neglected pessary may cause ulceration of the vagina and incarceration that may necessitate the use of anesthesia for removal of the device [16,20]. Although rare, unusual complications of neglected pessaries have been reported in the literature. These complications involve erosion of pessaries into bowel or bladder [15-18,24,30]. They usually occur after years of neglect and can be extremely difficult to treat. The Gellhorn and doughnut type of pessaries have more commonly been implicated in these complications [7,23]. As the elderly segment of the population continues to grow, pessary use can be expected to increase. It is not uncommon for patients to forget that there is a pessary in the vagina, and this is especially liable to happen in the elderly and demented.

Only six cases of an isolated rectovaginal fistula secondary to erosion from a pessary have been reported in the literature [24-29]. In two of the case reports, the patient was symptomatic and was passing feces through her vagina [24,25]. The optimal management of such fistulas can be challenging. Patients should undergo a colonoscopy to rule out comorbidities, such as prior pelvic irradiation, inflammatory bowel disease and colorectal neoplasia. Our patient failed two transanal rectal repairs under a covering stoma. In Kankham and Geraghty's case report a rectal repair was unsuccessful as well [24]. No definitive attempt for repair is described in two other case reports. One case was treated with a diverting end colostomy [25] and the other case was lost to follow up [26]. Nonoperative management with vaginal estradiol cream in a patient who had undergone a vaginal hysterectomy and subsequently diagnosed with a rectovaginal fistula after removal of a Gellhorn pessary is also reported [27]. In another case report a transvaginal layered repair and a a porcine dermal graft in addition to a partial colpocleidesis was performed[28].Tarr s case was managed by a delayed primary transperineal repair levatorplasty and colpocleidesis [29]. Transvaginal repair is usually preferred by most gynecologist and urogynecologists. In all reported transvaginal or transperineal repairs a colpocleidesis was added to the repair which may compromise the vagina especially in sexually active women. The chronic inflammation produced by the pessary may have had an adverse effect on the attempted repairs. However, our second repair was performed approximately one month later while the patient was still diverted. The inflammatory reaction should have subsided through this interval. It can be deducted that an optimal repair may require an abdominal approach with bringing down a healthy portion of the colon with a new blood supply. No colpocleidesis or additional graft interposition is necessary and good long term results can be expected with an abdominal approach.

The literature fails to provide any statistical data about the prevalence of the use of pessaries or the success rates. Patient's perception and acceptance has not well been documented in the literature as well. The vaginal pessary is an effective and safe but probably underused tool for incontinence and prolapse. Complications can be minimized with patient education and careful follow-up. Patients who fail to attend follow-up appointments should be contacted and pessary care and maintenance should be ensured. Clinicians should entertain the possibility of vaginal pessaries in women who present with abdominal, gynecological or genitourinary complaints.

Conclusion

The pessary is an effective device in the management of a number of urogynecologic problems. Serious complications are anecdotal but can be difficult to treat. Most of these complications are due to neglect and can be prevented by diligent follow-up and patient education. A rectovaginal fistula can be asymptomatic and an abdominal approach may be required for optimal treatment. It is essential to obtain a good gynecological history and exam in patients who present with abdominal or genitourinary symptoms without obvious cause. Surgeons should be aware of these complications. After removal of a pessary the rectovaginal area should be carefully inspected for possible complications.

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