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INDICATIONS, COMPLICATIONS AND TROUBLESHOOTING OF VAGINAL PESSARIES

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Abstract: For many years, women have used vaginal pessaries to control prolapsed urine, and more recently these devices have also been used to manage incontinence. The purpose of this article is to outline the indications for the use of pessaries, and to address the patient's suitability for this form of treatment. Common pessary-related complaints that women may report are discussed and appropriate investigations and interventions are suggested. A brief review of serious complications that can arise if pessaries are not handled properly are also included. For many women, a pessary is an ideal option for managing POP. However, it is essential to remember that even this conservative form of intervention can have adverse effects on women.
Keywords: Complications, indications, patient suitability, troubleshooting, vaginal pessaries.

INTRODUCTION

Pelvic Organ Prolapse (POP) is a very common condition, particularly among older women. It has been estimated that 50% of women who have children will experience some form of POP later in life (SMITH et al. 2010; VASCONCELOS et al. 2020; DE MENDONÇA et al. 2022), although the true prevalence is not known because many women do not seek help from a health professional. All women have an 11.7% risk of having at least one operation for POP during their lifetime (OLSEN et al. 1997). Prolapse is rarely caused by a single event, but rather is the result of the cumulative effects of lifestyle, work, or injury to the pelvic floor. There are several risk factors for POP;

for example:

- pregnancy and childbirth;
- aging and menopause;
- lifestyle factors including constipation, smoking and being overweight;
- exercise, such as continuous weight lifting and strenuous exercise at the gym;
- chronic (ie, long-term) conditions that cause constant stress and strain on the pelvic floor;
- previous pelvic surgery; and
- a genetic predisposition, such as connective tissue weakness (ie hypermobility), where the support systems of an individual's muscles and tissues are weaker than normal (signs of this include red hair, pale skin, stretch marks, and genetic disorders of collagen deficiency, such as Marfan syndrome or Ehlers-Danlos syndrome).

There are three main treatment options for POP. The first-line approach must always be pelvic floor physical therapy. While this helps to strengthen the pelvic floor muscles, which will better support the prolapse, alleviate some symptoms, and stop the condition from progressing, they usually do not resolve the prolapse. The second option is a pessary, and the third and most invasive option is surgery.

INDICATIONS FOR USE

Pessaries are generally recommended as a helpful form of treatment for POP in women who:

- choose to try such device;
- are awaiting surgery or postponing surgery and want some temporary relief from their symptoms;
- are pregnant, postpartum or wish to have more children in the future; and/or
- are unfit or choose not to undergo surgery.

POP pessaries are generally placed into two categories. The former are supportive pessaries that rely on support from the patient's own pelvic floor muscles. The second category of pessaries are pessaries that take up space. Proper placement for support pessaries is in the upper portion of the vagina, above the level of the pelvic floor muscles. Cube pessaries are also designed to be positioned high in the

vagina and have the advantage of an attached string or loop to aid in removal, allowing some patients to manage their pessary on their own. Pessary fitting is essentially a trial and error process, and providers are aware that it is necessary to try many different types and sizes of pessaries for successful fitting.

For some women, apessary can be seen as a short-term management strategy. However, it has been shown that, if well adjusted, more than 50% of patients will continue to use a pessary for more than a year (SULAK et al. 1994; JACHTOROWYCZ et al. 2019). Fernanda et al. (2006) reported that, regardless of the type of pessary, the reported symptom improvement rates are as high as 83% for women with POP, 58% for those with urinary urgency, continence, and 23% for those with stress urinary incontinence. . Pessaries are available in a variety of different sizes and styles. Some work by providing support, while others fill device space. There is a growing trend for women to self-manage their pessaries at home, removing them by cleaning and reinserting the pessary. This is essential for women using cube and Inflatoball pessaries (Milex Products Inc., Chicago, IL, USA), and is also often performed by those with ring pessaries. However, not all patients choose to self-manage, while some are capable unsuited for this approach. Also, certain pessaries (eg Gellhorns) cannot be removed automatically (DE OLIVEIRA et al. 2019).

ARE PESSARIES SUITABLE FOR EVERYONE?

Unfortunately, pessaries are not suitable for everyone with POP, and up to 22% of women cannot be fitted correctly (WU et al. 1997). This can be for a number of reasons, including the shape of the vagina or the degree of prolapse. If a woman has had previous vaginal surgery, there may be scarring or bands of tissue that prevent or cause significant discomfort when applying the pessary, and these problems may also cause cramping when the device is in situ. Also, some women just don't like the thought of having anything in their vaginas for any significant period of time. There are also factors that healthcare professionals must consider before offering individuals with a pessary. Most serious are the complications associated with these devices linked to neglect of routine pessary care in non-adherent patients. Indeed, they do not always take the form of direct noncompliance on the part of the patient in cases of dementia, and other physical or mental health conditions that may limit an individual's ability to remember or attend appointments without assistance. If there is no appropriate care plan in place or support to ensure the plan is followed, then a pessary must not be considered.

COMPLICATIONS

There are no established UK or international standards or guidelines on how often pessaries must be changed or inspected to avoid complications. Research by Gorti et al. (2009) suggested that most clinicians opt for a six-monthly review treatment, but the reported range was 3 to 12 months. A Cochrane review reported that complications associated with pessaries are rare, and that there is no consensus on the management of complications (BUGGE et al. 2013). The most frequent complication in the use of the pessary is superficial aerosion of the vaginal mucosa, which presents as a fetid odor, purulent secretion, irregular blood, stained discharge and increased fluid from the vaginal secretion (ABDULAZIZ et al. 2015). A literature review by Arias et al.

Complications	Pessary Type	Number of cases
urological		
urosepsis	Gellhorn	1
ureteral obstruction	Shelf	1
	Ring	1
Urinary	Shelf	2
Vesicovaginal fistula caused by neglected omen	Gellhorn	4
	Ring	1
Vesicovaginal fistula caused by severe atrophy	gehrung	1
Intestine		
Perforation of the vaginal vault	Ring	1
	shelf	4
rectovaginal fistula	Ring	1
Cecal rupture caused by displaced pessary with fatal outcome		
Built-in pessaries		
Incarcerated embedded pessary requiring major surgical intervention	Ring*	6

*All used for >10 years.

Table 1.Serious complications (total n = 23) reported in association with neglected pessaries (Arias et al. 2008)

CLIP-ON PESSARIES

Patients must be informed that it is not inadvisable to have to change the size or type ofpessarywhen they are being equipped for the first time. It is often helpful to have them stand, sit, walk, squat, and empty their bladder (to check for postvoid residual urine volume, if indicated).

Healthcare professionals must always assess comfort, relief of symptoms and whether the patient has noticed any urinary leakage. The instructions women receive are essential to help them self-manage their pessaries and know when to seek medical advice. Women must be advised to report any of the concerns listed below, and they must be provided with contact details to enable them to do so.

Symptoms to report include:

- bleeding or discomfort/pain;
- difficulty urinating;
- any change in color or consistency of vaginal discharge;
- any increase in the amount of fluid in the vagina;
- any foul odor associated with vaginal disorders; and
- Vaginal itching.

PROBLEMS SOLUTION

Scale apessaryit is often a case of trial and error. It is vital to ensure that the most suitable design is chosen in order to ensure that complications are minimized. Long-term management plans will vary between individuals and their behaviors. As mentioned above, there are no guidelines on the management of pessaries and associated complications, and there is only one limitation in the identified evidence base. The troubleshooting guide in Table 2 is based on prior experience learned, case-based discussion with other medical experts with other healthcare professionals, from study days focused on pessaries. This can be used to guide your practice, but must also It must be noted that you must develop a formal patient pathway that has been reviewed by a local expert committee.

Problem	Solutions
Pessary slides down	Advise the patient to insert a clean finger into the vagina and push the pessary back. Pull the pessary out. Try a larger pessary size. Manage constipation. Consider an alternative form of pessary.
Incomplete bladder emptying, reduced urinary flow and/or voiding difficulties	Assess post-void residual urine volume and/or flow rate. Try a smaller pessary size. Manage constipation. Consider an alternative form of pessary.
New onset urinary incontinence	Assess post voiding residual urine volume and use a dipstick to rule out a urinary tract infection. Pelvic floor muscle training. Consider an alternative pessary (for example, a button ring).
Pessary falls out when intestines open	Manage constipation. Defecation techniques. Try a smaller or larger pessary size. Consider an alternative form of pessary.

Abnormal vaginal discharge	It can be caused by a normal foreign body effect. High or low vaginal swab. Culture: antibiotic (clindamycin) or antifungal (itraconazole). Balance-Activ or Relactagel. Estrogen cream or ring or estrogen-free moisturizer. More frequent removal and cleaning of the pessary. Hygiene
For vaginal bleeding	Perform a speculum exam to inspect the vagina for ulceration. Schedule patient for a transvaginal scan to assess endometrial thickness.
Ulceration of the vaginal wall	Topical HRT. Do not reinsert the pessary. Reassess after 1–4 weeks. Reinsert the pessary, if appropriate.
Vaginal atrophy	Topical HRT
Unable to remove the pessary	Feel the entire pessary to check for overgrown tissue. Try rotating the pessary inside the vagina. Local anesthetic gel to make the patient more comfortable. Find out where the nearest bones are! Referral to the local gynecologist for removal in the operating room. Do not reinsert the pessary immediately.

Table 2.Troubleshooting with PEssaries:
(HRT) hormone replacement therapy:

FINAL CONSIDERATIONS

For many women, a pessary is an ideal option for managing POP. However, it is essential to remember that even this conservative form of intervention can have adverse effects on women. The keys to ensuring that pessaries do not cause long-term harm to women are regular assessments, and educating patients to encourage them to report any concerns. Vaginal pads are widely used for POP and stress urinary incontinence. Most current studies focus on the use of the pessary in obstetrics, especially in preterm delivery. This chapter provides a brief review of existing clinical studies on the use of vaginal pessaries in POP, SUI, and obstetrics.

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