

doi: <http://dx.doi.org/10.11606/issn.1679-9836.v97i2p154-159>**Pessary use for conservative treatment of pelvic organ prolapse: literature review***Tratamento conservador de prolapso de órgão pélvico com pessário:
revisão de literatura***Cristiane Regina de Barros¹, Rogério Bonassi Machado²,
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Barros CR, Bonassi Machado RB, Camargo ACM, Gollop TR. Pessary use for conservative treatment of pelvic organ prolapse: literature review / Tratamento conservador de prolapso de órgão pélvico com pessário: revisão de literatura. Rev Med (São Paulo). 2018 March-Apr.; 97(2):154-9.

ABSTRACT: INTRODUCTION: Symptomatic pelvic organ prolapse (POP) affects the quality of life (QoL) of women and requires treatment. Because it is more prevalent in elderly patients, its surgical treatment may be limited by clinical contraindications or the patient's desire for conservative treatment. These patients may, therefore, benefit from the use of pessaries. PURPOSE: to analyse the published studies concerning the impact on the quality of life (QoL) of women with POP through the use of pessary treatment, as well as the risk factors arising from the failure of this method. METHOD: bibliographic review using the *Scientific Electronic Library Online* (SciELO) and PubMed® databases, using the terms "pelvic organ prolapse, pessary and quality of life", published between January 2011 and December 2016. RESULT: The studies show that treatment using a pessary reports good progress, improving the symptomatology caused by the prolapse, and this result is similar to patients who underwent surgical treatment. The questionnaires for the evaluation of QoL used were diverse, but all observed improvement. CONCLUSION: conservative pessary treatment is a viable option for women suffering from POP, even at an advanced stage of POP, but a pessary is more commonly used by those in whom there is contraindication to surgical treatment.

Key words: Pessaries; Pelvic organ prolapsed; Quality of life; Review literature as topic.

RESUMO: INTRODUÇÃO: O prolapso de órgãos pélvicos (POP) sintomático afeta a qualidade de vida (QV) das mulheres e demanda tratamento. Por ser mais prevalente em pacientes idosas seu tratamento cirúrgico pode ser limitado por contraindicações clínicas ou desejo da paciente por um tratamento conservador; e por isso estas pacientes poderão se beneficiar com o uso de pessários. OBJETIVO: analisar os trabalhos publicados referentes ao impacto na qualidade de vida (QV) das mulheres com POP através do tratamento com pessário, bem como os fatores descritos como risco para o insucesso deste método. MÉTODO: revisão bibliográfica utilizando as Bases de Dados *Scientific Electronic Library On-line* (SciELO) e PubMed®, com os termos "pelvic organ prolapse, pessary and quality of life" publicados entre janeiro de 2011 a dezembro de 2016. RESULTADO: Os estudos mostram que o tratamento com pessário apresenta boa evolução, melhorando a sintomatologia causada pelo prolapso, semelhantes às pacientes que foram submetidas à tratamento cirúrgico. Os questionários para avaliação de QV utilizados foram diversificados, mas todos observaram melhora. CONCLUSÃO: o tratamento conservador com pessário é uma opção viável para mulheres com POP mesmo em estágio avançado, mas é mais utilizado naquelas nas quais há contraindicação para tratamento cirúrgico.

Descritores: Pessários; Prolapso de órgão pélvico; Qualidade de vida; Literatura de revisão como assunto.

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INTRODUCTION

Pelvic organ prolapse (POP) is defined by the International Continence Society (ICS) as the descent of the anterior or posterior vaginal wall, or of the vaginal vault. It affects woman, particularly the elderly, and presents as main risk factors multiparity, childbirth, collagen diseases, hereditary factors, obesity, smoking, menopause and constipation¹. Although it is not a disease that causes death, it has a major impact on the QoL of these patients².

According to the Brazilian Institute of Geography and Statistics ('Instituto Brasileiro de Geografia e Estatística', IBGE) it is estimated that by 2050 we will have more than 9 million women aged 80 or over³ and so with the increase in life expectancy, more POP cases will emerge in the coming years. The treatment of this pathology is fundamental to restore daily activities and, consequently, to improve QoL².

Asymptomatic POP cases do not require any treatment, but when they lead to changes in urinary or intestinal function, changes in daily locomotive, work or sexual activities, or when they simply prevent the patient from being able to sit down comfortably, treatment is imperative.

Pelvic organ prolapses are classified in 4 stages: I, II, III and IV. The reference point for the classification of prolapses is the hymenal ring. The most severe stages of pelvic organ prolapse (III and IV) appear several centimetres beyond the hymenal ring.

Most women with POP undergo surgical corrections because such correction is a definitive treatment, whereas the pessary is only palliative.

Although surgery yields positive results, the procedure becomes contraindicated in cases of clinical instability and comorbidity². In situations where the patient does not have the clinical condition required for surgery or prefers non-invasive treatment, the patient can opt for the pessary⁴. This silicone device is commonly found in the form of a ring or doughnut, and should be individually tailored according to the evaluation of the pelvic organ prolapse quantification system (POP-Q) and the diameter of the vagina to choose the correct size. It is usually suitable for patients with stages III or IV prolapse.

The most appropriate type of vaginal pessary is chosen, for example: Ring or Doughnut (similar to the sweet), and the size according to the severity of the prolapse and the ability to retain it within the vagina. In addition to these choice parameters, it is important that the patient or the patient's caregiver can easily and hygienically handle them.

When the surgical procedure is contraindicated, the pessary has the advantage of being able to be placed

and removed by the patient themselves, when properly guided, without negatively influencing their social life, work life or sexual activity. However, in some cases vaginal discomforts, abrasions, bleeding and discharge may occur⁴, which is why proper hygiene care is essential, as well as training supervised by a physiotherapist, nurse or social worker, with the support of a relative, if possible, for their removal, resting time and reintroduction.

Another factor that should be taken into consideration for the discontinuation of pessary use is urinary incontinence, which may occur after prolapse correction. Many women return with a symptom that requires proper evaluation in order to make a recommendation for the most appropriate treatment (physiotherapy, medication or surgery)². For this the Urodynamic Test is used, whose purpose is to classify the type of urinary incontinence (urgency, exertion or a combination), which, together with clinical examination, leads to a more reliable diagnosis in order to start treatment.

There are studies discussing the use of a pessary as a conservative treatment for POP, and evidence has been published that this therapeutic method is effective in improving patients' QoL and sexual function, as well as in reducing vaginal symptoms⁵. However, the literature lacks research which uses validated and specific prolapse questionnaires for the assessment of QoL before, during and after pessary use. The purpose of this review, therefore, was to analyse existing studies on pessary use in women with pelvic organ prolapse related to the improvement of QoL.

METHOD

For thorough searches to be conducted, the PRISMA steps were used. Articles dated January 2017 to July 2017 were searched, using the Scientific Electronic Library Online (SciELO) and PubMed® databases, using terms "POP and pessary, POP and Quality of life". As inclusion criteria, we used studies published between January 2011 and December 2016 in English and Portuguese that addressed POP, pessary use and QoL. As exclusion criteria, we did not use studies that did not use QoL or non-validated questionnaires, patients with symptoms of urinary incontinence or intestinal symptoms, and publications prior to January 2011.

RESULTS

We found 25 articles with the terms MeSH, pessary and POP, POP and QoL in the PubMed database, and no articles were found with these terms in SciELO. The information flow of the research carried out in the databases is presented in flowchart (Figure 1).

After applying the exclusion criteria, 10 articles were left that were used in this review (Table 1).

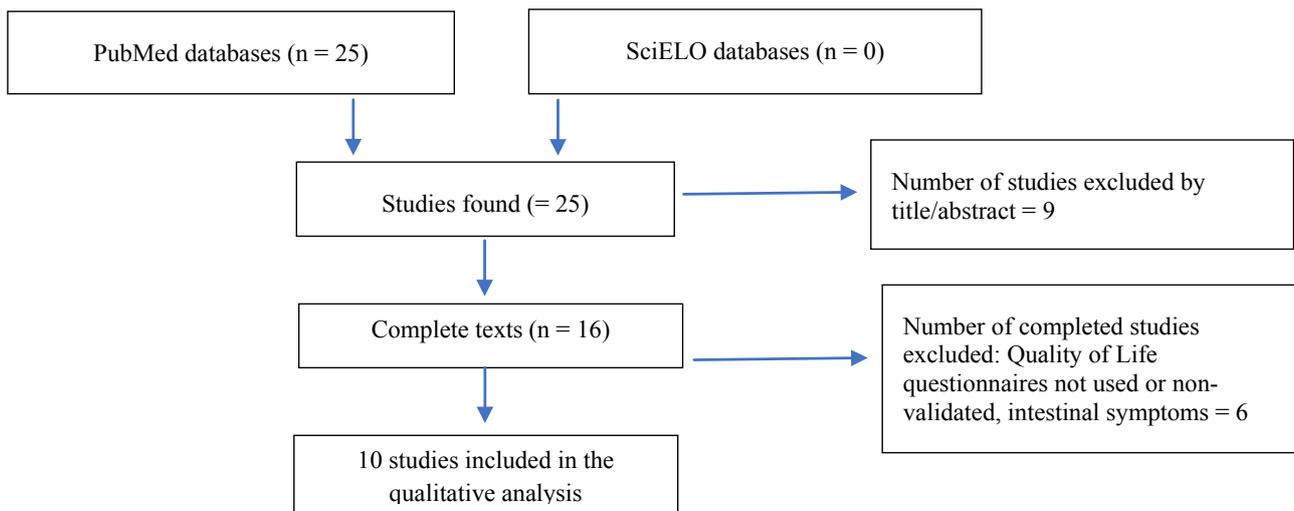


Figure 1. Flowchart of studies found in databases

Table 1 - Summary of the 10 articles published on the use of pessaries and QoL

ReferencE	Study design	Age	Parity	Questionnaire used	Follow-up period	Pessary discontinuation	Results
de Albuquerque Coelho et al. ⁴	Systematic Review	± 75	NR	POPIQ, CRAIQ, UIQ	6 months	Discomfort, device expulsion	Pessary use brought benefits to quality of life and women reported good levels of satisfaction.
Manchana; Bunyavejchevin ⁵	Prospective Study	± 67	NR	P-QOL	1 year	Not presented	Improvement in symptoms and quality of life was reported by the patients
Lone et al. ⁶	Prospective	± 67 pessary ± 59 surgery	±5	ICIQ-VS and ICIQ-UI(SF)	1 year	Discomfort, placement difficulty	There was no significant difference between the two types of treatment in relation to Quality of Life
Lamers et al. ⁷	Systematic Review	NR	± 4	KHQ, FSFI, PFIQ	Average 1 year	Constipation, vaginal discomfort, abrasions, bleeding	There was efficacy in the use of pessary related to quality of life
Ko et al. ⁸	Retrospective Study	NR	NR	UDI-6, IIQ-7	1 year	Stress urinary incontinence, no family support	Findings of improvement in prolapse symptoms, and consequently an increase in quality of life
Tenfelde et al. ⁹	Retrospective Study	± 66	NR	PFIQ-7, PFDI-20	6 – 12 months	Placement difficulty	The three groups (successful, unsuccessful and difficulty in fitting the pessary) did not present clinical differences such as age, previous surgery, the reason for discontinuation being the difficulty in placing the pessary; the successful group presented improvement in the questionnaire results.
Chan et al. ¹⁰	Cross-sectional, Observational Study	± 74.4	NR	PFDI, PFIQ, Short Form-36 (SF-36)	4 to 6 months	Bleeding and vaginal discomfort	Complications with pessary (discomfort, abrasion) were factors for choosing surgery in the quality of life questionnaires.

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Reference	Study design	Age	Parity	Questionnaire used	Follow-up period	Pessary discontinuation	Results
Wang et al. ¹¹	Prospective Cohort Study	± 66	NR	SF-12 and PFIQ-7	3 and 6 months	Discomfort, urinary retention, unsuitable size	Compared with the initial findings, the SF-12 and PFIQ-7 questionnaires demonstrated significant improvement in QoL.
Wang et al. ¹²	Comparative Study	NR	NR	PGI-I	4 to 5 months	Discharge, dysuria, incontinence	The surgical group presented more results, but the PGI-I showed no statistically significant difference, all of which showed an improvement in the QoL score.
Yang et al. ¹³	Cross-sectional, Observational	NR	NR	PFDI-20-SF and the Pelvic Floor Impact Questionnaire.	4.5 years	Vaginal abrasion	Most women returned every 3 months for pessary monitoring and there was no significant difference between groups.

POPIQ Pelvic Organ Prolapse Impact Questionnaire, CRAIQ Colorectal-Anal Impact Questionnaire, UIQ Urinary Impact Questionnaire, KHQ King's Health Questionnaire, FSFI Female Sexual Function Index, PFIQ Pelvic Floor Impact Questionnaire, ICIQ-VS International Consultation on Incontinence Questionnaire Vaginal Symptoms, ICIQ-UI(SF), Urinary Incontinence Short Form, PFDI-20-SF Pelvic Floor Distress Inventory Short Form, SF-12 Short Form Health Survey, PFIQ-7 Pelvic Floor Impact Questionnaire Short Form, Short Form-36 Quality of Life Questionnaire ('Questionário de Qualidade de Vida'), P-QOL Prolapse Quality of Life, PGI-I Patient Global Impression of Improvement, NR Not Reported.

In the articles selected, it was possible to verify that the age range and follow-up period were similar in relation to surgical treatments; however, there may have been discontinuation of use of the pessary. The results show that in all the studies the pessary achieved good progress, improving vaginal and prolapse symptoms, as with the patients who underwent surgery. The questionnaires used were diverse, but all encompassed urogynaecology and the impact on QoL. Only one study used SF-36, a general QoL questionnaire, and only one study used a questionnaire specifically related to prolapse - P-QOL.

Interventions with the use of pessary had the ring model choice in 11 studies, doughnut and ring models in 2 studies, and the Gellhorn model in just 1 study. The average follow-up period was 6 months in 50% of the studies, 1 year in 28.57% of the studies and only 3 months in 21.42% of the studies.

It is important to emphasise that the best results occurred in the studies with more than a 6-month follow-up period. In this period a good adaptation to the pessary occurred, since it is possible to more reliably quantify the improvement of vaginal symptoms and QoL due to the follow-up throughout treatment with the device, as well as being able to answer questions and resolve possible discomforts and complications in order to produce greater confidence in, and adaptation to, the device.

The use of oestrogen in the form of vaginal cream was only used in cases of vaginal atrophy, being important to minimise the risk of vaginal abrasions. Regarding discontinuation with the conservative treatment, the factors most noted in 12% of cases were placement difficulty (due

to the lack of anatomical knowledge or lack of family support) and vaginal discomfort, with urinary incontinence being observed in only 10% of cases. Patients without family support are more likely to give up, and the urinary incontinence factor is due to the prolapse correction, requiring physical or surgical follow-up to evaluate and treat the symptom.

DISCUSSION

According to Lone et al.⁶ the use of pessary was effective in the resolution of POP symptoms, presenting no inferior performance to the surgical correction method. The most frequent complications, and in some cases the reason for discontinuation of the treatment, were vaginal discomfort, abrasions, placement difficulty, bleeding and, in some cases, urinary incontinence following prolapse reduction⁷.

Even in more advanced stages of prolapse (Stages III or IV), pessaries were effective in reducing symptoms and, consequently, in improving quality of life in 28% of cases in which the device was used for more than one year⁵.

One-year follow-up studies reported that older women had greater acceptance of pessary use than younger women, particularly sexually active women, and it was possible to verify that in some cases discontinuation of use of the device was due to a lack of family support, physiotherapist, nurse or social worker, or to urinary incontinence^{8, 13}.

A multi-professional team is important so that patients have adequate support and training for pessary

placement and replacement, with the need for family support for successful therapy.

It is important to note that the patients in the analysed studies had an average age of 50-67 years, which differs from the patients seen at the health clinics and SUS pelvic floor outpatient clinics in Brazil, in which the average initial age is 70-90 years⁴. This shows us that there is a need for further studies with this population in order to verify the results of pessary use, since the gravity of prolapse tends to be higher (Stages III and IV), accompanied by vaginal atrophy and need of a relative or caregiver to assist when placing and removing the device.

Multiparity is also a determinant factor for the occurrence of prolapse in women, and the studies carried out in other countries making up the sample analysed refer to an average of 3-5 births, while the women with these symptoms in Brazil report a average of 5-8 births, some of them with the use of forceps or even home births⁴.

It is also worth noting that even in studies using diverse questionnaires, many of which were not exclusive to prolapse cases, it was possible to observe positive results. The majority of patients who discontinued use of the device did so due to difficulties in placing the pessary or, in some

cases, due to the occurrence of urinary incontinence^{11,12}.

The questionnaire most used was the Pelvic Floor Impact Questionnaire (PFIQ), which comprises three scales: Urinary Distress Inventory, Colorectal Distress Inventory and Pelvic Organ Prolapse Distress Inventory^{7,9,10,11}. The P-QOL questionnaire that specifically studies post-treatment quality of life in patients with pelvic organ prolapse was unfortunately applied in only one study of our sample⁵.

Therefore, studies using the P-QOL questionnaire are necessary to verify the impact of QoL strictly related to POP in order to make it possible to obtain specific scores of conservative treatment with pessary, since this device is of low cost, an extremely important factor in the Single Health System ('Sistema Único de Saúde', SUS).

CONCLUSION

We can conclude that pessary is a viable treatment option for women with POP, even in advanced stages (stages III and IV), having a positive impact on QoL, and it is particularly appropriate for patients who do not wish to, or cannot be, surgically treated.

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Received on: 2018 Jan. 08

Accepted on: 2018 March 01