



# #383 Self-management of Vaginal Pessaries – a Game Changer? – Long-Term Follow Up of Self-Management with Vaginal Cube Pessary Usage for Pelvic Organ Prolapse



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## Abstract

Introduction and hypothesis: Loss of anatomical support for the pelvic organs results in pelvic organ prolapse (POP). We hypothesized that daily self-management of a cube pessary is a safe, feasible long-term treatment in women with symptomatic POP. Methods: A cohort of 214 symptomatic POP patients (stage 2+) were enrolled prospectively (January–December, 2015). Each patient was size-fitted with a space-filling cube pessary (Dr Arabin®) and completed a questionnaire online or by phone ≥5 years after her initial fitting. Change in quality of life (QoL) was measured with the Patient Global Impression of Improvement (PGI-I). Results: Of 185 women included in our analyses, 174 (94%) were continuing to use their pessary 4 weeks postinsertion. Among those, 143 (82.2%) used the pessary successfully for ≥5 years. A large majority of these patients [88.8% (127/143)] described their condition as much or very much improved compared to their pretreatment status (PGI-I). Adverse secondary effects (ASEs) were infrequent [15.4% (22/143)]; when they did occur, they were mild, including smelly vaginal discharge (15/22) and slight vaginal bleeding caused by the fitting procedure (6/22). Conclusion: Daily self-management of cube pessaries was found to be a safe and effective treatment of improving POP-related symptoms and QoL in the long term.

## Introduction

According to current guidelines, conservative treatment should be the first line of POP therapy [1-3]. Because most women can be fitted successfully with a pessary and their use has been associated with high satisfaction rates and only low rates of minor complications, it is appropriate to consider pessaries in all women presenting with bothersome POP and/or stress urinary incontinence [3]. Indeed, nearly two thirds of women with symptomatic POP choose to proceed initially with conservative case management [4].

The main aim of this study was to evaluate long-term (5-year) satisfaction and dropout rates in women using a cube pessary for symptomatic POP. Secondarily, we assessed the main reasons that patients discontinued cube pessary use.

## Methods and Materials

All recruited patients had their initial pessary fitting at one of two urogynecologic outpatient clinics in Hungary (one in Győr and one in Budapest) between January and December of 2015. At their initial fittings, all of the participating patients were examined according to the guidelines established by the International Urogynecological Association.

This prospective cohort study was approved by the University of Pecs Institutional Ethical Review Board (IV/7737-3/2021/EKU). All participants had informed consent.

symptomatic (bulge sensation in their vagina with or without symptoms of urinary, bowel, or sexual dysfunction) stage 2 or higher POP of the anterior, middle, and/or posterior compartments of the vagina; and successful fitting with a vaginal cube pessary (Dr Arabin®) for daily self-management  
Prospektív kohort study

214 participants asked – online/telephone, 185 participants answered.

**Table 1.** Comparison of characteristics across pre- (age <55 years) and postmenopausal (age ≥ 55 years) patient groups.

| Characteristic                   | Pre-menopausal<br>N = 58 | Post-menopausal<br>N = 116 | P      |
|----------------------------------|--------------------------|----------------------------|--------|
| Mean age ± SD, years             | 47 ± 5.71                | 68 ± 8.0                   | <0.001 |
| Mean BMI ± SD, kg/m <sup>2</sup> | 24.0 ± 4.56              | 27.0 ± 4.0                 | <0.001 |
| Parity, median (min;max)         | 2 (0;4)                  | 2 (0;5)                    | 0.868  |
| Obstetrical data                 |                          |                            |        |
| Caesarian section, %             | 18.96                    | 6.03                       | 0.031  |
| Vacuum extraction, %             | 10.34                    | 5.17                       | 0.205  |
| Forceps delivery, %              | 1.72                     | 1.72                       | >0.999 |
| Gynecological data               |                          |                            |        |
| Abdominal Hx, %                  | 0                        | 11.2                       | 0.023  |
| Vaginal Hx, %                    | 1.72                     | 6.89                       | 0.122  |
| Colporrhaphy rate, %             | 20.30                    | 37.06                      | 0.138  |
| Other anti-POP procedure, %      | 0                        | 2.40                       | 0.554  |

**Table 2.** Reasons reported by patients for discontinuing cube pessary use.

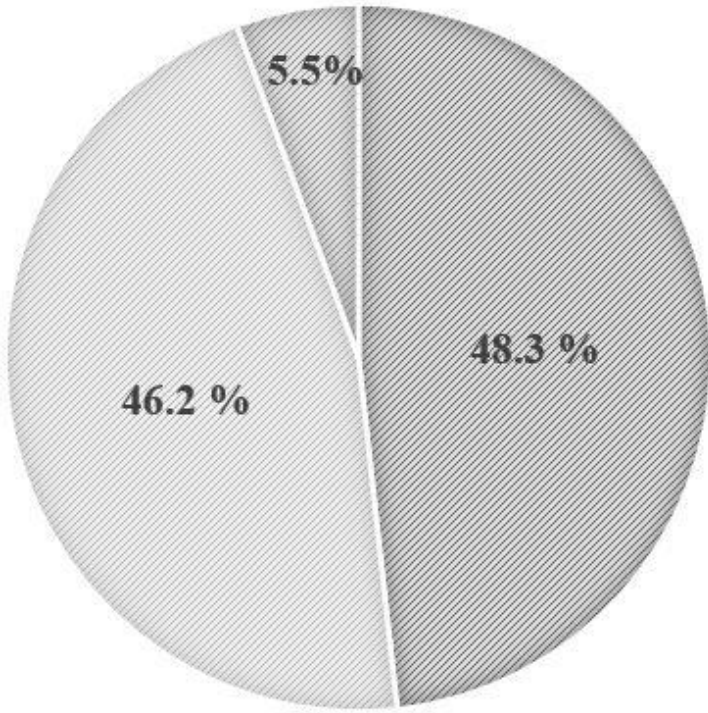
| Time used | N  | Reason                   | N | Anti-POP surgery N |
|-----------|----|--------------------------|---|--------------------|
| <1 year   | 15 | Became symptomless       | 3 | 1                  |
|           |    | Chose another treatment* | 2 |                    |
|           |    | Discomfort               | 9 |                    |
|           |    | Urinary incontinence     | 1 |                    |
| >1 year   | 16 | Became symptomless       | 2 | 6                  |
|           |    | Chose another treatment* | 6 |                    |
|           |    | Urinary incontinence     | 1 |                    |
|           |    | Discomfort               | 7 |                    |

## Results

**Table 3.** Self-reported POP symptom scores among active cube pessary users after 5 years of use (N = 143).

| Questionnaire response (rating)  | Symptom, % (N)     |       |                  |      |                |      |
|----------------------------------|--------------------|-------|------------------|------|----------------|------|
|                                  | Bulge seen or felt |       | Bladder symptoms |      | Bowel symptoms |      |
| Very much better (1)             | 71.3               | (102) | 32.2             | (46) | 9.8            | (14) |
| Much better (2)                  | 23.1               | (33)  | 45.5             | (65) | 19.6           | (28) |
| A little better (3)              | 0.0                | –     | 0.0              | –    | 0.0            | –    |
| No Change (4)                    | 2.8                | (4)   | 3.5              | (5)  | 8.4            | (13) |
| A little worse (5)               | 0.0                | (0)   | 0.7              | (1)  | 0.7            | (1)  |
| Much worse (6)                   | 0.0                | –     | 0.0              | –    | 0.0            | –    |
| Very much worse (7)              | 0.0                | –     | 0.0              | –    | 0.0            | –    |
| Did not have this symptom before | 2.8                | (4)   | 18.2             | (26) | 60.8           | (87) |

**Figure 1.** Cube pessary adjustments in women with symptomatic POP during the 5-year observation period of this study. The percentages of participants who had their pessary size reduced, increased, and never changed are shown in dark grey, medium grey, and light grey pie sections, respectively. Note that the size was often decreased but rarely increased.



## Discussion

The vast majority of the participants used the pessary successfully for at least 5 years and nearly nine-tenths of those who did so describe their condition as being much or very much better after 5 years of pessary use.

Although pessaries are a widely accepted conservative treatment modality for symptomatic POP, there are limited data available on their self-management and the long-term outcomes of their use. In the current prospective study, we report for the first time to our knowledge, the long-term experience of symptomatic POP patients with self-management of cube pessaries.

Common reasons for discontinuation of doctor-led long-term pessary treatment include heavy discharge, bleeding, experiencing discomfort during pessary changes, and disruption of sexual activity. In our study cohort, only 15.2% of participants reported ASEs, all of which were minor. Removal of the pessary before going to sleep every day may allow vaginal tissues to heal and regenerate nightly and thus prevent the development of serious complications.

Commonly, pessary use is considered a suitable treatment primarily for elderly women who are not eligible candidates for surgery or who do not wish to undergo surgery and for women who may yet bear children [5,6]. In our current study, almost a third of the long-term cube pessary users were premenopausal (age ≤ 55 years).

## Conclusions

Daily self-managed cube pessary use was found to be safe and effective.

This treatment modality offers a convenient and cost-effective method for treating POP-related symptoms and thus improving QoL in the long term.

Given our clinical experience and the present empirical data, it is our view that self-management is a critical factor in the long-term success of pessary treatment.

## References

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