# How sickening is residual urine in women?

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#### Introduction

Urinary retention, namely a high post-void residual volume (PVR), is one of the most prevalent urogynecological conditions. Although in common medical practice PVR of more than 100ml is likely to be drained, there is a paucity data answering the question what kind of pathogenicity an elevated PVR in women causes.

Aim of the current study is to evaluate women with the clinical presentation of PVR, the acceptability and effect of current drainage solutions and consecutively – the effect of drainage on clinical symptoms.

### **Methods**



single-center prospective study.



Data were collected from women with PVR>100ml between January 2020 and December 2022.



Visual analogue scale (VAS) from 0 to 10 was performed asking the patients about the bother of symptoms.



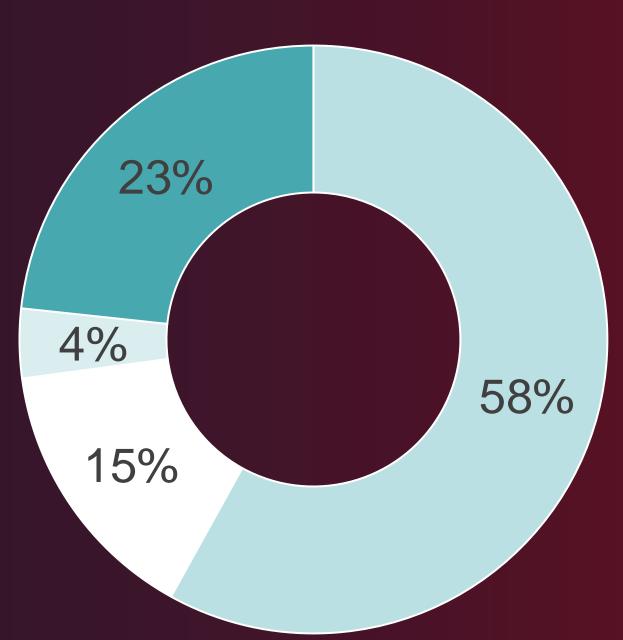
Methods of drainage, development of symptoms and VAS was determined before therapy and six months after.

#### Results

A total of **239** patients were recruited, with a mean age of 61.2 years. The study revealed that 58% of the patients had urinary tract infection (UTI) as their main symptom. 15% suffered from overactive bladder (OAB) and only 4% demonstrated stress urinary incontinence (SUI). Mixed urinary incontinence was found in 23% of women. Only 9% of patients responded to drug treatment. Intermittent self-catheterization (ISC) was used to drain PVR in 89% of patients. 11% had a significant improvement, while in women under 60 years, this improvement was only 4%. VAS developed from mean of 7,2 to a mean of 1,7 showing significant improvement of symptoms during drainage.

## Symptoms of high post-void residual volume (PVR)

■ HWI ■ OAB ■ SUI ■ Mishinkontinenz



#### AGING BLADDER

(significant improvement of symptoms during drainage)



11%

(<60 years)



(>60 years)

#### Conclusion

Significant residual urine may indeed cause recurrent urinary tract infections, OAB and stress urinary incontinence causing significant burden of disease in women. Intermittent clean self-catherization and other forms of drainage may improve the symptoms and the burden of bother; however, in elderly patients residual urine overall may remain an issue not resolving after drainage.