

# #624 Cranberries after pelvic floor surgery for Urinary Tract Infection Prophylaxis

Mooren E S<sup>1</sup>, Liefers W J<sup>2</sup>, de Leeuw J W<sup>1</sup>

Ikazia Hospital, Rotterdam, the Netherlands 1. Dept. of Obstetrics and Gynaecology 2. Dept. of Pharmacy

## Objective

A common complication after pelvic floor surgery is an urinary tract infection (UTI). Antibiotics as prophylaxis may reduce the prevalence of UTI's by 50%, but microbial resistance may be a large disadvantage. Recent research found a 50% reduction in rate for UTI with the use of highly dosed cranberry capsules after elective gynaecologic surgery, suggesting that cranberry capsules may serve as a good prophylaxis. The aim of this study was to assess whether peri-operative cranberry prophylaxis reduces the risk of clinical overt UTI after elective pelvic floor surgery with indwelling catheter postoperatively.

## Methods

**Design:** a single centre randomized, double blind, placebo controlled trial.

**Intervention:** a cranberry product containing 36 mg of Proanthocyanidin (PAC-A) twice daily. Started the evening before surgery and continued for 6 weeks.

**Comparison:** identical placebo capsules, same regime.

**Main endpoint:** incidence of UTI within 6 weeks after surgery, defined as clinical diagnosis and treatment of UTI by the medical doctor.

**Statistics:** Per protocol analysis

## Results

Between October 2016 and September 2018 204 participants were included for primary analysis (figure). Baseline characteristics were similar in both arms for age, postmenopausal status, body mass index (BMI), ethnicity and delivery in history. In the placebo group more women experienced a UTI in the year before enrollment. Most performed surgeries were anterior repair, posterior repair, sacrospinous fixation (SSF), most in combination. Significantly more SSFs were performed in the control group: 60,8% versus 44,1% in the intervention group (p=0,02).

Results	Cranberry (n=102)		Placebo (n=102)		Signif. p
	n	%	n	%	
Peri- and postoperative					
Complications	0	0	3	2,9	0,08
Urinary retention	12	11,8	11	10,8	0,83
Side effects	9	8,8	8	7,8	0,9
Therapy compliance	90	88,2	84	82,4	0,97
<b>End points</b>					
UTI	13	12,7	21	20,6	0,13
Positive urine culture	9	8,8	14	13,7	0,27

The incidence of UTI was 12,7% in de cranberry arm and 20,6% in the placebo arm, this was not a significant difference. This might be explained by underpowerment of the trial, due to lower prevalence of UTI in this trial than anticipated.

## Conclusion

**This trial shows no beneficial effect of cranberry prophylaxis in women undergoing pelvic floor surgery, although such effect cannot be ruled out in settings with a higher prevalence of UTI's.**

## References

Foxman B, Cronenwett AEW, Spino C, et al. Cranberry juice capsules and urinary tract infection after surgery: results of a randomized trial. Am J Obstet Gynecol 2015;213:194.e1-8.

