Abstract
Title: Can intake of cranberry juice reduce the recurrence of urinary tract infection in women?
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Background: Almost half of all women are affected by an acute urinary tract infection (UTI) at some point in their lives. It is a common problem and many women suffer from recurrent UTI. UTI is more common in women than in men, due to the shorter urethra in women. The most common treatment of confirmed UTI is antibiotics for 3-5 days, but the problem with antibiotic resistance is increasing and an alternative way of treatment is desirable. The effect of cranberry on UTI has been debated for a long time.

Objectives: The aim of this systematic literature review is to find out whether cranberry juice can reduce the relapse of UTI in women with recurrent UTIs.

Search strategy: The search for articles was carried out in two databases; PubMed and Scopus. The same keywords were used in both databases; “cranberry” or “cranberry juice” or “cranberries” or “vaccinium macrocarpon” AND “urinary” or “urinary tract” or “urinary tract infection”. In the Scopus-search the words “RCT” or “randomized controlled trial” were included.

Selection criteria: Randomized controlled human studies done on healthy, adult women with a history of at least one UTI, where the intervention was cranberry juice, were included. Articles published before year 2000 were excluded, as well as studies done on only elderly women and/or men and children and studies where the intervention was cranberry extract-, capsules- or powder.

Data collection and analysis: We used the SBU’s Form for quality review of randomized trials for the evaluation of the articles. For the summary of evidence we used Foundation for the compiled evidence according to GRADE.

Main results: In three of the studies cranberry juice showed some effect on recurrent UTI, but the result was significant in only one of the three studies (p=0.016). Furthermore cranberry juice showed to have significant effect on recurrent UTI in a subpopulation of women age 50 and older (p=0.0425). In one of the studies the result was the opposite i.e. more relapses of UTI was reported in the intervention group than in the control group.

Conclusion: This systematic literature review shows moderate strength (+++) of evidence that cranberry juice does not reduce the relapse of UTI in healthy, adult women.

Keywords: Urinary tract infection (UTI), cranberry juice, antibiotic resistance.