

Reviewer's report

Title: Dosage effect on uropathogenic Escherichia coli anti-adhesion activity in urine following consumption of cranberry powder standardized for proanthocyanidin content: a multicentric randomized double blind study

Version: 3 **Date:** 30 January 2010

Reviewer: Kingsley Chidozie Anukam

Reviewer's report:

General comments

Urinary tract infections remain an important condition for which a large number of women, including men of reproductive age seek medical treatment. The burden of recurrence and associated cost and discomfort is a major source of concern to most women coupled with the failure of pharmacotherapy. Therefore innovative ways are needed to help in curbing the recurrence of this infection that has defiled modern medicine. The use of cranberry has been proposed with few successes and this study is timely and warranted.

However, the methodology and conclusions submitted by the authors leave much to be desired and needs more explanations.

Specific comments. Minor essential revision.

Abstract: Conclusion: The last statement should be removed as the so-called universal effect is doubtful with the small sample size. Eight volunteers from 4 countries (Europe 3, Asia 1) is not representative of universality. There are no volunteers for North and South America, and Africa.

Methods

1. The first line should read.....even if cranberry is a supplement.....
2. Read would like to know the specific ethical committees in these study sites.
3. Authors chose 32 females from Japan, Hungary, Spain and France, i.e 8/country. Readers would like to know the rationale for choosing 32 females from these countries. Does this number represent universality as claimed by the authors.
4. Readers would like to know the form of consent given by the volunteers
5. Urine with an abundance of leukocytes and nitrites were excluded. Readers would like to know at what point during the participation period this was done.
6. Volunteers in Japan and Hungary received 0, 36 and 72mg of PAC, while volunteers from France and Spain received 0, 18 and 36mg of PAC. The authors should explain the reason for the disparity in dose regimen.
7. ...Is universal within the population..This statement need to be changed. The sample size from these countries is not from the same population.

Results

1. The authors should explain the Non-significance of the dose between 36 and 72, this negates the authors statement that the effect of cranberry is dose dependent.
2. Page 12, readers would like to know the meaning of “geographic effect” for the volunteers from Japan.
3. Page 13, line 6.... Should readwas increased to 32%...

Discussion

1. Page 14. Last paragraph, ...due to the production of endogenous adhesion inhibitors that are produced by some people.....The authors should provide reference. One wonders if the adhesion inhibition is known to be present in only Japanese women
2. The authors should provide reference for difference in the metabolism between the Asian and European lifestyles.
3. Readers would also like to know if men with UTI could also benefit from cranberry consumption.
4. The authors should in addition explain the nyctohemeral production briefly.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

'I declare that I have no competing interests'

But because the authors used only 32 volunteers in the study and they concluded that their findings are universal, one wonders if the 32 participants represents the world. Otherwise the authors can change the title as a pilot study in four countries.