

Reprinted from [Urology](#), Published online: December 23, 2016, Bilal Chughtai, Amy B. Howell, Dominique Thomas, Jeffrey B. Blumberg, "Efficacy of Cranberry in Preventing Recurrent Urinary Tract Infections: Have we learned anything new?", Copyright 2016, with permission from Elsevier

To the Editor:

Efficacy of Cranberry in Preventing Recurrent Urinary Tract Infections: Have we learned anything new?

The recent study, "Effect of Cranberry Capsules on Bacteriuria Plus Pyuria Among Older Women in Nursing Homes" by Juhthani-Mehta et al. and accompanying editorial concluded that all cranberry products are ineffective in preventing urinary tract infections (UTIs) and should no longer be recommended for prevention.¹ Considering the need for alternative prophylaxes due to increasing global antibiotic resistance, discounting decades of research that supports a role for cranberry² is concerning. Despite abiding by cranberry product standardization methods in the current study as recommended in the 2012 Cochrane Review,³ positive results for recurrent UTI prevention would not be expected in a population where 69.2% of patients did not experience a UTI the year prior and would not be considered to have recurrent UTI as per IDSA (Infectious Diseases Society of America) guidelines.⁴

If the study goal was to determine if cranberry decreases rates of asymptomatic bacteriuria (ABU); 42% of patients did not have it at the study entry. Although ABU is common among the elderly,⁴ IDSA guidelines by Nicolle, et al., do not recommend screening for or treating ABU in this cohort.⁵ Furthermore, it has been shown that treatment does not decrease symptomatic infection rates or improve survival in the elderly.

Cranberry products have reduced UTI rates in many at-risk populations in several studies.² Despite 21% of women dying during the current study, 37% with impaired cognitive status ("non-alert" or "delirious"), 68% with bladder incontinence, and 44% with fecal incontinence, subjects in the cranberry arm still had a 17% reduction in symptomatic UTIs, a 33% reduction in hospitalizations, a 67% reduction in multi-resistant bacteriuria, and a 24% reduction in antibiotic use. However, the study was not powered sufficiently for any of these endpoints.

If the study goal was to determine whether ALL female residents in nursing homes, whether at risk for UTIs or not, should be consuming cranberry products, then by all means, the study did demonstrate this. But if the goal was to comment on women with ABU or those suffering from recurrent UTIs, this study did not capture enough of this population or excluded them. To abandon over 25 years of research on cranberry based on this study would be, at best, irresponsible. We need to ensure that quality randomized controlled trials on antibiotic alternatives, such as cranberry, are encouraged, or we may not have an armamentarium of antibiotics large enough to combat the ever-increasing resistant UTIs.

Bilal Chughtai, M.D., Department of Urology, Department of Obstetrics and Gynecology, Weill Cornell Medical College, New York, NY

Amy B. Howell, Ph.D., Marucci Center for Blueberry Cranberry Research, Rutgers University, Chatsworth, NJ

Jeffrey B. Blumberg, Ph.D., Jean Mayer Human Nutrition Research Center on Aging, Tufts University, Boston, MA

References

1. Juthani-Mehta M, Van Ness PH, Bianco L, Rink A, Rubeck S, Ginter S, Argraves S, Peter Charpentier, Acampora D, Trentalange M, Quagliarello V, Peduzzi P. Effect of Cranberry Capsules on Bacteriuria Plus Pyuria Among Older Women in Nursing Homes. A Randomized Clinical Trial. *JAMA*. doi:10.1001/jama.2016.16141 Published online October 27, 2016.
2. Wang CH, Fang CC, Chen NC, Liu SS, Yu PH, Wu TY, Chen WT, Lee CC, Chen SC. Cranberry-Containing Products for Prevention of Urinary Tract Infections in Susceptible Populations: A Systematic Review and Meta-analysis of Randomized Controlled Trials. *Arch Intern Med*. 2012;172(13):988-996. doi:10.1001/archinternmed.2012.3004.
3. Jepson RG, Williams G, Craig JC. Cranberries for preventing urinary tract infections. *Cochrane Database of Systematic Reviews*. 2012, Issue 10. Art. No.: CD001321. DOI: 10.1002/14651858.CD001321.pub5.
4. Schmiemann G, Kniehl E, Gebhardt K, Matejczyk MM, Hummers-Pradier E, The Diagnosis of Urinary Tract Infection. *Dtsch Arztebl Int*. 2010 May; 107(21): 361–367.
5. Nicolle LE, Bradley S, Colgan R, Rice JC, Schaeffer A, Hooton TM. Infectious Diseases Society of America; American Society of Nephrology; American Geriatric Society. Infectious Diseases Society of America guidelines for the diagnosis and treatment of asymptomatic bacteriuria in adults. *Clin Infect Dis*. 2005;40:643–54.