Preliminary and potential effect of curd on management of uncomplicated urinary tract infections - A case report

GCS Gunasekera

Introduction: Recurrent urinary tract infections (UTIs) are culture proven UTIs that have occurred at least twice within 6, or thrice within 12 months. Uncomplicated UTI is common in women. Several studies done on the effect of vaginally administered probiotics and yoghurt in the prevention of UTIs have been found to be promising as a supplementary method of treatment. This case report is of a girl who had recurrent uncomplicated UTIs who tried local application of curd as a treatment method.

Case report: An 18-year-old single girl presented with mild dysuria for 2 days. She had 4 episodes of UTI in the 2 years prior to this presentation with urine cultures growing $>10^5$ CFU/mm^3 coliforms each time. She denied any sexual contact. Physical examination and Xray kidney-ureter-bladder and ultrasound scan of the abdomen were normal.

After obtaining urine for culture, she was advised on non-medical methods (increased hydration, double micturition and not holding up urgency to urinate, wiping/cleaning perineum from front to back). Antibiotics were not given pending culture results which grew a coliform $>10^5$ CFU/mm^3 sensitive to all tested antibiotics. Although her symptoms had markedly reduced within 48 hours, she was very concerned about recurrence. Having done a literature search on application of curd over the genitourinary area she was willing to try this in preference to antibiotic prophylaxis.

Having discussed her concerns on applying curd (presence/absence of pathogens in curd, frequency, area and duration of application), a reputed local brand of curd with expiry date of 24 hours from production was chosen. About 3 full tablespoons of the curd were applied daily before bedtime for 7 days over the genitourinary area using her fingers from front to back following hand washing and washing of the area with soap and water. She was advised to maintain a diary and seek medical advice in the event of a recurrence of symptoms. She was reviewed monthly for 6 months with no recurrence. Two urine cultures 3- and 6-months following curd application were negative.

Discussion/ Conclusions: The source of urinary pathogens in females is the perineal microbial flora (the vaginal microbiome). The effect of curd on the vaginal microbiome is not well studied. Follow-up of this patient over a longer period and setting up a well-designed study to determine the protective value of this intervention may be useful in management of this common condition in women.

Keywords: *Recurrent UTIs, vaginal microbiome, curd*

Department of Medical Microbiology and Immunology, Faculty of Medicine, University of Colombo, Sri Lanka

Address for correspondence: Dr GCS Gunasekera, Department of Medical Microbiology and Immunology, Faculty of Medicine, University of Colombo, Sri Lanka; Telephone:0714934525 Email: chathurigcs@yahoo.com

https://orcid.org/0000-0002-5141-6319