Urinary tract infection prophylaxis in children with neurogenic bladder with cranberry capsules: randomized controlled trial

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Abstract

Objectives. The aim of this randomized controlled prospective study is to evaluate the efficacy of cranberry capsules for prevention of UTI in children with neurogenic bladder caused by myelomeningocele. Patients and Methods. To be eligible for this study, patients had to be diagnosed as neurogenic bladder caused by myelomeningocele, evaluated urodynamically, followed up with clean intermittent catheterization and anticholinergic drugs. Intervention. Six months of treatment with placebo; after a week of wash-out period treatment of cranberry extract tablets (1 capsule/day) for an additional 6 months. Randomization was performed sequentially. Patients and care givers were blinded to drug assignment. Main outcome measure was infection rate. Group comparisons were performed with Wilcoxon test. Results. The study population included 20 (F/M: 13/7) patients with neurogenic bladder with the mean age of 7.25 ± 3.49 (4, 18) years. The median UTI rate was 0.5/year during placebo usage whereas 0/year during cranberry capsule usage. Decrease in infection rate was significant with cranberry capsule usage (P = 0.012). Decrease in the percentage of the pyuria was also recorded as significant (P = 0.000). Any adverse events or side effects were not recorded. Conclusion. We concluded that cranberry capsules could be an encouraging option for the prevention of recurrent UTI in children with neurogenic bladder caused by myelomeningocele.