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## ANALYSIS OF THE USE OF CRANBERRY AS A PROPHYLACTIC MEASURE IN INFECTION CAUSED BY *ESCHERICHIA COLI*

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### RESUMO

Urinary tract infection (UTI) is a prevalent pathology worldwide. However, UTI mainly affects the female population. *Escherichia coli* is the most common etiologic agent isolated in urine cultures from patients with urinary tract infections. Cranberry juice has been used as a prophylactic measure in cases of successive reinfection, since the compounds present in the fruit inhibit microorganism growth by acidifying the urine. The present work aims to verify the benefits of cranberry use in the prophylaxis of urinary infections caused by *E. coli*. The LILACS, Pubmed and Scielo databases were used to delineate the theme, using the descriptors '*Escherichia coli* AND cranberry', with the filter 'last 10 years'. As exclusion criteria, articles that did not specifically address the use of cranberry and/or had restricted access were removed. Thus, a total of 14 articles were obtained, being 04 from LILACS, 03 from Scielo, and 06 from Pubmed. As a result, 6 articles were distinguished through the exclusion criteria, published from 2005 to 2019, in a study of 72 patients with UTI, cranberry had a decrease in bacterial growth and pH reduction, in a sample of 55 uncircumcised boys and 12 circumcised boys aged 6 to 18 years with uncomplicated UTI, there was greater prevention by reducing complications, with a greater effect on uncircumcised boys, in continuity, in 20 women treated with Cysticlean for 3 to 6 months the result showed 93% improvement in the first trimester, with 20% improvement in the final range, the mechanism in literature is given by the presence of fructose and proanthocyanidin, however, there are findings of no antibacterial activity of cranberry by research in 20 university students, by microbial growth of *E. coli* in urine samples after ingestion of cranberry, as well as evaluation by antibacterial tests in Agar diffusion I and II with diffuser disc in media seeded with strains of *E. coli*, without development of well in the halo containing cranberry. For that reason the importance of using cranberry juice for palliative measures and reducing complications for bacterial infections caused by *E. coli* is observed. However, in other studies it can be seen that cranberry does not have antimicrobial activity. Therefore, it is necessary to have more studies of cranberry to have a conclusion about its activity against *E. coli*.

**PALAVRAS-CHAVE:** Cranberry, *Escherichia coli*, prophylaxis, Urinary Tract Infections

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