

Medicinal plants with antimicrobial potential against urinary tract infection causing microbial pathogens: An overview

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Abstract

Urinary Tract Infection is a very common microbial infection affects the health of many people throughout the world. In the current scenario, antibiotics use against the infectious microbes has been given much importance to treat this disease. But antibiotic resistance and side effects associated with the synthetic drugs identified as emerging problem for successful treatment of this disease. Many studies have been performed to study the activity of medicinal plants against UTI causing microbes *vis-a-vis* to explore alternative sources of medicines to fight against UTI. With this outset the present study reviewed the activity of medicinal plants against UTI causing microbial pathogens and also emphasized the bioprospecting of the medicinal plants with antimicrobial properties to develop novel drug to treat UTI.

Keywords: UTI, Alternative medicine, Uropathogens, Medicinal plants, Antimicrobial phyto-compounds

Introduction

Urinary Tract Infection (UTI) is a common infectious disorder caused by various microbial pathogens and occurs in any part of the urinary tract including kidneys, renal pelvis, ureters, urinary bladder and urethra (Barnett et al., 1997; HA Abdalla., 2014). Anatomically, the main types of UTIs are classified as- acute pyelonephritis, an infection more extensively affects the upper urinary tract structures-the kidneys; cystitis-an inflammation of the bladder and, urethritis-an inflammation of the tube of urethra, which carry urine from the bladder to the outside of body (Barnett et al., 1997). However, clinically, the UTIs are classified as “uncomplicated” and “complicated” (Yasmeen et al., 2015). The uncomplicated UTI usually shows minimal effect on long term renal function and mostly seen in patients with normal urinary tracts and are treated with small dose of antibiotics. The complicated UTI is caused by antibiotics resistance bacteria and is more difficult to cure. This type of UTI is mostly seen in patients with anatomically abnormal urinary tract and leads to undesired renal function (Barnett et al., 1997).