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The Importance of Urinary Tract Infections (Utis)

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Editorial

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Abstract

Urinary Tract Infections (UTIs) are significant infectious diseases which may infect different parts of the urinary tract. The UTIs clinical demonstrations involve a variety of signs and symptoms. The level, severity and the duration of UTIs are completely in association with causative microbial agents, host factors and predisposing factors. In this editorial we have a very light view on UTIs.

Keywords: Bacteria; Fungi; Urinary tract infection

Introduction

Infectious diseases are the most important problems within human populations around the world. Among a diversity of microbial infections, Urinary Tract Infections (UTIs) are considered as a double edged concern with economical and health-care properties [1].

UTIs cost millions of dollars every year in different countries and governments. The UTIs are recognized among men, women, infants, children and adults. However, the UTIs are more severe in women than men [1,2].

The clinical demonstrations of UTIs may appear in the forms of complicated or uncomplicated, asymptomatic or symptomatic and in the lower or the upper parts of the urinary tract. According to a diversity of investigations, the severity and the form of infection is directly associated with microbial virulence factors, host factors, and predisposing factors. Here, we study these three factors in brief [2,3].

Microbial Virulence Factors

From the microbiological aspect, the type of causative agent determines the treating methodology. So, it is important to know which microorganism (s) is (are) responsible for the detected infection. Two significant microbial agents are known as the typical opportunistic pathogenic microorganisms; Escherichia coli (Bacterial agent) and Candida albicans (Fungal agent). However, there are many other gram negative and gram positive bacteria which may cause UTIs. Recognition of the UTIs causative agent is useful for predicting the presumptive virulence factors and the kind of definite treatment. In addition to recognition of the UTIs causative agent, it is important to know about the sensitivity of the recognized microbial agent against antibiotics. In recent decades, the number of multi-drug resistant microorganisms (MDRMs) has been rapidly raised up. Recognition of MDRMs is vital for a definite treatment [2,4-6].

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Host Factors

Here we have separated the host factors and predisposing factors as two different parameters. The most important host factors are gender and genetic factors. These factors have a direct and effective influence on UTIs. As a matter of fact, female gender and some blood groups are significant host factors for UTIs and the infection recurrence [2-4].

Predisposing Factors

There are many predisposing factors which are peripheral or related to the patients. Private hygiene, high sexual activity, sexual intercourse with different partners, age, pregnancy, diabetes, antibiotic consumption (for a long time), grafts (e.g. kidney), immunosuppressors, hospitalization (for a long period), catheterization and indwelling other medical devices [2-4].

Conclusion

The clinical training regarding UTIs must be added as an essential program to basic and higher education systems. The patients with UTIs must be trained for preventing recurrent infections. The training program is the cheapest way of preventing and controlling UTIs.

References

- 1. Jahandeh N, Ranjbar R, Behzadi P, Behzadi E (2015) Uropathogenic Escherichia coli virulence genes: invaluable approaches for designing DNA microarray probes. Cent European J Urol 68(4): 452-8.
- 2. Behzadi P, Behzadi E (2008) The microbial agents of urinary tract infections at Central Laboratory of Dr. Shariati Hospital, Tehran, Iran. Turk Klin Tip Bilim 28(4): 445.
- 3. Behzadi P, Behzadi E, Yazdanbod H, Aghapour R, Akbari Cheshmeh M, et al. (2010) A survey on urinary tract infections associated with the three most common uropathogenic bacteria. Maedica (Buchar) 5(2).
- 4. Behzadi P, Behzadi E, Yazdanbod H, Aghapour R, Cheshmeh MA, et al. (2010) Urinary tract infections associated with Candida albicans. Maedica (Buchar) 5(4): 277-279.
- 5. Behzadi P, Behzadi E, Ranjbar R (2015) Urinary tract infections and Candida albicans. Cent European J Urol 68(1): 96-101.
- 6. Behzadi P, Najafi A, Behzadi E, Ranjbar R (2016) Microarray long oligo probe designing for Escherichia coli: an in-silico DNA marker extraction. Cent European J Urol 69: 105-111.