

Evaluation of sIgA Diagnostic Usefulness In Urinary Tract Infection

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مكتبة المعلومات الجامعية
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التوثيق الإلكتروني
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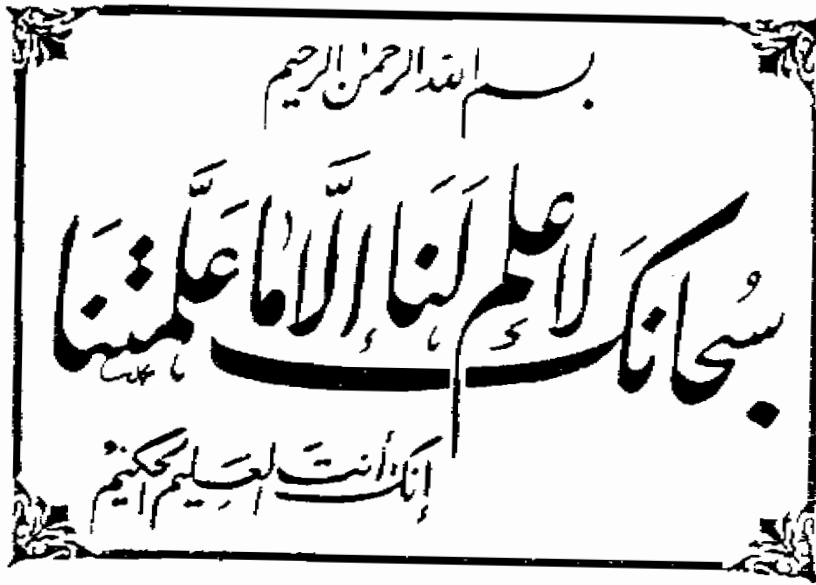
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Introduction

INTRODUCTION

Clinical diagnosis of urinary tract infection (UTI) is frequently difficult, particularly for women with frequency of urination and dysuria (Pappas, 1991). This is because other causes eg., vulvo-vaginitis (with or without urethritis), genito-urinary trauma, urethral irritants and allergic reactions may give rise to the same symptoms (Johnson, 1991).

The laboratory tests including cultures & microscopic determination of pyuria, hematuria and bacteriuria play an important role in diagnosis of UTI. (Pappas, 1991).

However, non of these assays consistently produce high level of both sensitivety and specificity. Culture results may be falsely positive because of contamination at the time of specimen collection (Stamm, 1983). False negative results might be obtained because of the use of antibiotics, degree of hydration of patient, specimen collection and the transport method used (Kellogg et al., 1987 & Komaroff, 1986).

Measuring pyuria is relatively simple and readily available but sometimes it is non specific indicator for urinary tract infection

(Johnson and Stamm, 1989 & Pappas, 1991).

In contrast, microscopic determination of hematuria and bacteriuria is highly specific for UTI but may lack sensitivity (Pollock, 1983).

Measurement of urinary antibody level may provide an alternative marker of host response to infection. This can be used either as a method of screening or to assist along with other tests in establishing a diagnosis (Mckenzie & Young, 1987, Kellogg et al., 1992)

Aim of the Work

AIM OF THE WORK

Evaluation of sIgA as a sensitive, reliable and rapid test compared with the other routine bacteriological tests used for diagnosis of UTI.

Review of Literature

I. DEFINITIONS:

Urinary tract infection (UTI) encompass a spectrum of clinical and pathological conditions involving various parts of the urinary tract. The syndrome ranges from asymptomatic bacteriuria to perinephric abscess with sepsis (Johnson, 1991).

Microbiological Terminology:

To communicate information on the subject of UTI effectively, terminology should be standardized and precised (Lipsky, 1989).

UTI refers to the presence of micro-organisms in the urinary tract. Bacteria and occasionally fungi and viruses are involved (Johnson, 1991)

Bacteriuria refers to the presence of bacteria in urine (Normally bladder urine is sterile)

(Monzon et al., 1958).

Bacteriuria may occur as a result of infection or contamination of urine specimen at the time of collection which usually arise from urethral or periurethral flora (Johnson, 1991).

The term "significant bacteriuria" has been introduced to differentiate the bacteria of true

infection from that due to contamination

(Kass and Finland, 1956).

The threshold traditionally used for defining significant bacteriuria is 10^5 or more colony forming unit (CFU) of bacteria / ml of voided urine. This number is highly specific for UTI in symptomatic women (Johnson, 1991). More recent studies suggest that a threshold of 10^2 CFU of coliform bacteria / ml of urine may be a more sensitive indicator of infection in symptomatic individual but less specific than a value of 10^5 CF/ml (Pappas, 1991).

In symptomatic men whom urine is less likely to be contaminated thus a threshold of 10^3 CFU of bacteria / ml suggest infection (Lipsky, 1989).

In catheterized patient a quantitative threshold of 10^2 CFU / ml has been suggested to establish significant bacteriuria (Warren, 1987).

Asymptomatic bacteriuria refers to significant bacteriuria in patient without symptoms attributable to urinary tract. It occurs most commonly in pregnant women and the elderly

(Andriole, 1975 & Boscia et al., 1986).