# Investigation on Some Ethological Agent Associated with Male Urethritis

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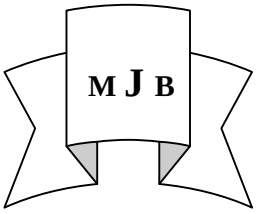


## Abstract

In this study 29 samples were obtained from patients suffering from urethritis. Detect of microorganisms that causing urethritis it was found that (18) samples were positive for *Neisseria gonorrhoeae* and (8) samples for *Chlamydia trachomatis* and (2) samples for *candida Albicans*. (1) sample for *Corynebacterium urealyticum.*

The effect of some antibiotics was also investigated on all *Neisseria* isolates and the results show that all isolates were sensitive to *Azithromycin*, but lesser to cefotaxin 72.3%, while most strains were resistance to pencillin G72.2% and to piperacilin 66.6%.

Also this study was concerned the age group in which urethiritis was prevalent and the results showed that infection with urethritis increased with age group 20-29 in contrast with other age groups.

## التحري عن بعض المسببات المرضية المصاحبة لالتهاب الاحليل عند الذكور

**الخلاصة**

تم اخذ 29 عينة من مرضى يعانون من التهاب الاحليل، كما تم التحري عن البكتريا المسببة لهذا الالتهـــاب ووجـــد ان(18) عينة كانوا مصابين ببكتريا *Neisseria gonorrhoeae*، و(8) عينات كانت تعود لبكتريا *Chlamydia trachomatis* وعينتين تعود لـــ *Candida albicans* وعينة واحد تعود لبكتريا *Corynebacterium urealyticum*.

ومن ثم درس تأثير بعض المضادات الحياتية على عزلات بكتريا *Neisseriae gonorrhoeae*، وقد اظهرت النتائج ان جميع العزلات كانت حساسة لـــ Azithromycin 100% وبدرجة اقل لكـــل مـــن *Cefixin* 88.9% و Cefotaxiة 72.3% و Amikacin 55.6%.

في حين كانت اغلب العزلات مقاومة للـــ Pencillin G 72.2% و Piperacillin و66.6%.

كما وجد ان التهاب الاحليل له علاقة بالعمر حيث بينت النتائج ان نسبة الاصابة تزداد في الاعمار التي تتزواح ما بين (20-29) سنة مقارنة بالاعمار الاقل من 20سنة او اكثر من 30 سنة.

## Introduction

Urethritis is the comments inflammation in male associated with sexually transmitted diseases (STD). [1]

It can be caused by a number of organisms, such as *Neisseria gonorrhoeae* (GC), *Chlamydia trachomatis* and others.[2,3]

The causes of the inflamed urethra may be one disease causing bacterium such as a gonococcus which is the most common causes of urethritis in men, other causes are *Chlamydia trachomatis* and other bacteria which causes nongonococcal urethritis (NGU). [4]

Many people with one STD have others as well infact, infection with both gonorrhoeae and NGU is common in men with urethritis. [5]

Clinical manifestation of urethritis are difficult to distinguish between gonococcal urethritis with other types of urethritis. [6]

However, a symptomatic infection may be found in up to 75% of sexually action men. [7]

Urethral discharge can be seen with many types of urethritis and the microorganisms can be isolated from patients who complaining from urethral discharge specimens. [8]

This study is intended to investigate causes of urethritis in male in Hilla province and to show the effect of various antibiotics on isolated bacteria.

## Material and Methods

### Patients

Twenty nine patients were complained from urethral discharge admitting to private clinics in Hilla province were included.

### Specimens

Urethral discharge was obtained from the patients and directly subjected to microscopic examination, after staining with gram stain., cultures on specific media were carried out to detect on *Neisseria gonorrhoeae*, and other fastidious bacteria.

Also smear prepared by direct fluorescent antibody techniques to detect on *Chlamydia trachomatis*. [1]

Some antibiotic discs were used to show the effect of them on isolated bacteria. [9]

## Results and Discussion

Sexually transmitted diseases are group of communicable diseases that are transferred by sexual contact. [10]

They are now the commonest group of notifiable infections diseases in most countries [1].

In male, urethritis is the commonest type of such diseases, it can be caused by a number of organisms, the commonest causes are *N. gonorrhoeae & Chlamydia trachomatis*. [11]

This study is intented to investigate causes of urethrities in males in Iraq.

The present study showed that more than half of patients has gonococcus urethritis (GU) as shown in table (1), 62.11 (18.29), the rest has non gonococcus urethritis (NGU) this agreed with several results obtained by [1,2].

**Table 1** Frequency of microorganisms associated with male urethritis.

| Organisms isolated | No. | % |
|---|---|---|
| *Gonorrhoeae* | 18 | 62.1% |
| *Chlamydia trachmatis* | 8 | 27.6% |
| *Candida albicans* | 2 | 6.8% |
| *Corynebaterium urealyticum* | 1 | 3.4% |
| *Total* | 29 | 100% |

Because urethiritis in men is usually sexually contracted and the usual causative pathogens are *Neisseria gonorrhea* [10,12].

Among men with NGU 27.6% (8.29) have been associated mostly with *Chlamydia trachomatis*.

Also patients with GU could harbor with *C. trachomatis*

simultaneously, this is in agreement with others who found that the two organisms may be found concurrently [8,11].

*Candida albicans* was detected in about 6.8% (2:29) of cases and *Coryrebacterium Urelyticum* about 34% (1:29) of cases.

The effect of some antibiotics on GC bacteria was investigated as shown in table (2).

**Table 2** Effect of some antibiotics on GC bacteria isolated from male urethritis

| Type of antibiotics | Resistance | Sensitive |
|---|---|---|
| Penicillin G | 13 | 5 |
| Cefotaxim | 5 | 13 |
| Cefixin | 2 | 16 |
| Amikacin | 8 | 10 |
| Piperacillin | 12 | 6 |
| Azithromycin | 0 | 18 |

It was observed that *N. gonorrhea* showed resistance to penicillin (72.2%) and piperacillin (66.6%) followed by Amikacin 44.4% and cefotaxim 27.7%.

However only two (18%) out of (16) *N.gonorrhae* isolates showed resistance to cefixin [13,14].

The effect of Azithromycin was also studied, it was seen that all GC isolates were sensitive to it, and it was very effective in treatment of Gc infection. [13]

The prevalence of this disease according to age groups was also studied. It was shown that the age group 20-29 years, compared to those below 20 years of age and those in age group 3-39 years old as shown in table (3).

**Table 3** Frequency of microorganisms according to the age group

| Age group | Agent | No. | Total |
|---|---|---|---|
| <20 | GC | 8 | 8 |
| 20-29 | GC<br>*Chlamydia trachomatis*<br>*Candida albicans* | 7<br>4<br>1 | 12 |
| 30-39 | GC<br>*Chlamydia trachomatis*<br>*Candida albicans* | 2<br>3<br>1 | 6 |
| 40-49 | GC<br>*Chlamydia trachomatis*<br>*Corynebacterium urelyticum* | 1<br>1<br>1 | 3 |
| **Total** | | | 29 |

It was shown that the prevalence of urethritis among males was high in the age group ranging from 20-29 years old, this result was high if it compared to the ages groups below or above this age group. However the

incidence of urethritis among age groups in this results agreed with the results obtained by [1,15,16]. Who revealed that, this age group was the sexually active age group.

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