

URETHRAL DISCHARGE

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Abstract : Urethral discharge is a common sexually transmitted infection among patients of 20-24 years of age and comprises about 15-20% of patients attending STD clinics in India. It results from urethritis and can be due to *Neisseria gonorrhoeae* (gonococcal urethritis), *Chlamydia trachomatis* or non-chlamydial infections (non-gonococcal urethritis). Associated symptoms include dysuria, increased urinary frequency and meatal pruritis or redness. In gonococcal urethritis profuse purulent urethral discharge is usually associated with severe symptoms. As the infection resolves the discharge becomes scanty and mucopurulent or mucoid. Complications of posterior urethritis, seminal vasculitis, prostatitis, epididymitis, urethral strictures or sterility can occur in untreated patients. Symptoms of chlamydial urethritis are less severe and mucoid or mucopurulent urethral discharge is usually scanty. Epididymitis or Reiter's disease may occur as its complications. Non-chlamydial urethritis is often chronic and may be due to *Ureaplasma urealyticum* or *Mycoplasma genitalium*.

Diagnosis of urethral discharge is mainly clinical. Demonstration of intracellular diplococci (*N. gonorrhoeae*) in Gram-stained smears of exudates will be diagnostic for gonococcal urethritis while presence of >5 pus cells/oil immersion field or >10 pus cells/high field in smears from first voided urine indicate non-gonococcal urethritis. Diagnosis by culture of causative organisms or molecular techniques is more specific but has the disadvantage of limited availability. NACO recommends syndromic approach for diagnosis and treatment in general practice. The drugs used for outdoor/uncomplicated cases are cefixime, azithromycin or ceftriaxone in gonococcal urethritis and azithromycin, doxycyclin or erythromycin in non-gonococcal urethritis. Patient education regarding safe sexual practices, early diagnosis and treatment, and partner management are important preventive measures.

INTRODUCTION

Urethral discharge is one of the common symptoms of sexually transmitted diseases. It results from urethritis or inflammation of urethra and may be purulent, mucoid or mucopurulent depending upon the cause. It constitutes 15-20 % of patients attending STD clinics in India². Traditionally it is classified into two broad types:- (1) Gonococcal Urethritis (GU) – due to *Neisseria gonorrhoeae*; (2) Non-Gonococcal urethritis (NGU)

The non-gonococcal urethritis is further divided into: (a) chlamydial urethritis and (b) non-chlamydial non-gonococcal urethritis (NCNGU).

ETIOLOGY OF NGU (Table 1)

Table 1: The etiological agents² of NGU

<i>Chlamydia trachomatis</i>	15-40%
<i>Ureaplasma urealyticum</i>	10-40%
<i>Trichomonas vaginalis</i>	5-15%
<i>Herpes Simplex Virus</i>	Unknown
<i>Candida albicans</i>	<5%
<i>Mycoplasma genitalium</i>	15-25%
Other bacteria	<5%
Non-infectious causes	?
Unknown	20-30%

EPIDEMIOLOGY

GU is more common than NGU in developing countries, while it is vice versa in the developed world. In U.S college campuses, more than 85% of urethritis is nongonococcal. However, the peak age for both NGU and GU is similar i.e. 20-24 years. WHO estimated³

that globally there are about 62 million new cases of gonorrhea and 27 million of them occur in South and Southeast Asia alone. Similarly, there are 92 million new cases of chlamydial infections globally, and South and Southeast Asia accounts for 43 million of them.

CLINICAL SPECTRUM

Urethral discharge is often associated with symptoms like:

(a.) Burning on passing urine (dysuria); (b.) increased frequency particularly at night or (c.) meatal pruritis and redness

Gonococcal Urethritis: It takes 2-5 days from infection to appearance of symptoms. Symptoms of urethritis and purulent discharge peak within two weeks without treatment. Urethral discharge occurs in 95% of men⁴ which is purulent in 75 %, white or cloudy in 10 % and clear in 5 %. When infection begins to resolve, the character of discharge changes from purulent to mucopurulent and then to mucoid. Without treatment the infection can ascend upwards and continue for many months. This may then produce posterior urethritis, seminal vesiculitis, prostatitis or epididymitis. Urethral strictures and infertility may occur as long term sequelae. In less than 1 % cases, the infection may also become blood borne (disseminated gonococcal infection) and may result in gonococcal arthritis or septicemia.

Chlamydial Urethritis: Genitourinary infection is caused by D-K serovars of *Chlamydia trachomatis*. A substantial number of these patients are asymptomatic. Incubation period varies from 7 to 14 days. Symptoms include discharge and dysuria. On examination mucoid or mucopurulent urethral discharge is usual. It can produce ascending infection producing epididymitis (<3 %) or may result in Reiter's syndrome (1-2%). Chlamydial urethritis may occur in women having chlamydial cervicitis. Although mostly asymptomatic, but may produce dysuria-pyuria syndrome mimicking cystitis manifesting clinically as dysuria and frequency.

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