

Antibiotic resistance in neisseria gonorrhea and treatment outcomes of gonococcal urethritis suspected patients in two larger Hospitals in Bhutan, 2015

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Abstract

Introduction: Gonorrhea is one of the most common sexually transmitted diseases and it is gradually increasing globally. Bhutan has very limited data on antibiotic resistance and treatment outcome.

Material and Methods: A descriptive study was conducted in 2 major hospitals in Bhutan; Jigme Dorji Wangchuck National Referral Hospital (JDWNRH) in the capital city and Phuntsholing General Hospital in the commercial city of Phuntsholing for the period of one year (Jan-Dec,2015). All patients suspected of gonococcal urethritis and empirical therapy prescriptions for gonococcal infection were included.

For male patients' urethral discharge was collected in the laboratory and female patients' samples were collected by treating physicians and were sent to microbiology laboratory. Additional information on sexual history, prior treatment and medication and contact details were collected by pharmacy staff during the issue of medicines. The patients' review and follow up were also made after 2 weeks of medication outcome by the pharmacy staff.

Results: Total of 524 participants was followed up in the study from January to December in the 2 hospitals. The majority of participants were male and only 2.3% (12) was female. More than half of the participants (87.6% (459) were from JDWNRH belonging to age group 26-35 years old. Neisseria gonorrhea was positive in 76% (398) of microscopy and 73.1% (383) by culture. Resistance against Ciprofloxacin, Penicillin, tetracycline and nalidixic acid were 85.1%, 99.2%, 84.8% and 99.7% correspondingly. However, susceptible percentage against Cefodoxime, Ceftriaxone and Azithromycin were 99.0%, 100% and 100% respectively. Suspected treatment failure was seen only in one patient out of 220 followed up.

Conclusion: Most of the currently used antibiotics for gonococcal infection were susceptible to Neisseria gonorrhea thereby presenting high clinical cure rate. It is very important to monitor the antibiotics resistance in Neisseria gonorrhea regularly. It is also recommended to conduct similar study to other hospitals.

Biography:

Ragunath Sharma has completed his B.Sc. at the age of 24 years from Bharathair, India. He work as a senior laboratory Technologist at JDWNRH

Speaker Publications:

1. "Pneumonia in children admitted to the national referral hospital in Bhutan: A prospective cohort study".
2. "2030. Impact of an Antimicrobial Stewardship Program on Carbapenem Susceptibility in a National Hospital in Bhutan".
3. "Antibiotic resistance in Neisseria gonorrhea and treatment outcomes of gonococcal urethritis suspected patients in two large hospitals in Bhutan, 2015".
4. "Serotypes and antibiotic susceptibility of Streptococcus pneumoniae in the Jigme Dorji Wangchuck National Referral Hospital, Thimphu, Bhutan: a preliminary finding".
5. "Burden of Gonorrhea and Trends in Antibiotic Susceptibility Pattern of Neisseria gonorrhea in Bhutan Over Four Years (2012-15)".

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