

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

Ragunath Sharma

Jigme Dorji Wangchuck National Referral Hospital, Bhutan

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. I work as a senior laboratory Technologist at JDWNRH.