Expanding the surveillance for the gonococcal resistance

Dear Editor,

Sexually transmitted infections (STIs) tend to cast a major influence on not only the sexual and reproductive health but also the overall living standards and have been identified as one of the five major disease categories necessitating adults to access healthcare services.[1] The recent global estimates suggest that more than 1 million people get infected with one of the STIs every day while almost 500 million people annually acquire the infection from one of the four major STIs, including gonorrhea.[1]

Evidence of antibiotic resistance against majority of the STIs has appeared; the scenario is extremely complex for the management of gonorrhea.[2] Further, reports of multi-drug resistant gonorrhea (namely, the microorganism being resistant to oral and injectable cephalosporins, penicillins, sulfonamides, tetracyclines, quinolones, and macrolides) have been reported in more than thirty nations across the world.[1,2] This is a serious challenge for the health professionals, as a disease which could have been easily cured with a single dose of antibiotic might now eventually precipitate severe complications such as infertility, blindness in neonates acquiring infection during childbirth, and stigma in the infected individuals and their families.[3]

Moreover, 10 nations have brought into the notice of international agencies that the existing treatment protocol is ineffective to control the gonococcal infection.[1,2] All these facts clearly reveal that most of the developing nations have not successfully dealt with the issues of the deficiencies in infrastructure, human resource shortage, level of awareness and stigma among general population, follow-up of partners, and screening activities both among general population and high-risk categories.[1-3]

The most effective strategy to restrict the transmission of gonococcal infection is to offer prompt detection and appropriate treatment to the infected individuals.[3] It is another challenge as most of the infected people never avail the needed services, and hence it is quite important to provide effective treatment whenever they do access health centers.[3,4] Realizing the global distribution of the problem, the World Health Organization has implemented the Gonococcal Antimicrobial Surveillance Programme (GASP) to track the emergence and spread of gonorrhea resistance.[3] The surveillance program has played a defining role in the streamlining of the problem and alteration of the management protocols.[3,4]

The findings of the studies done in Thailand have suggested the prevalence rates of penicillinase-producing *Neisseria gonorrhoeae* and high-level tetracycline-resistance *N. gonorrhoeae* as high as 82.1% and 84.1%, respectively.[5] In fact, owing to the merits attributed to GASP, an enhanced version of the surveillance has been initiated in Thailand to obtain a clear insight pertaining to the extent of the problem in general population, their demographic aspects, and desired treatment, to enable delivery of nondiscriminatory health care services.[3] The primary aim of the initiative is to strengthen the surveillance activities in the country by ensuring the standardization of the laboratory procedures, eliciting the relevant clinical and behavioral particulars, and modifying the gonococcal infection management protocol depending on the trends of the antibiotic resistance.[3] The obtained estimates can be further utilized to monitor the global distribution of infection and will even enable comparison between various geographical areas.[3-5] However, the surveillance program cannot deliver sustained positive results unless the existing STI control measures are strengthened and all the concerned stakeholders are roped in.[1,3]

In conclusion, the enhanced GASP remains an effective tool to generate adequate evidence to decide on the best possible approach to contain the spread of antimicrobial resistance effectively.

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Conflicts of interest

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Saurabh RamBihariLal Shrivastava, Prateek Saurabh Shrivastava, Jegadeesh Ramasamy

Department of Community Medicine, Shri Sathya Sai Medical College and Research Institute, Kancheepuram, Tamil Nadu, India

Address for correspondence:
Dr. Saurabh RamBihariLal Shrivastava,
3rd Floor, Department of Community Medicine, Shri Sathya Sai Medical College and Research Institute, Ammapettai Village, Thiruporur - Guduvancherry Main Road, Sembakkam Post, Kancheepuram - 603 108, Tamil Nadu, India.
E-mail: drshrishri2008@gmail.com

REFERENCES

1. World Health Organization. Sexually Transmitted Infections (STIs) – Fact Sheet No. 110; 2013. Available from: http://www.who.int/mediacentre/factsheets/fs110/en/. [Last accessed on 2015 Dec 05].
2. World Health Organization. Antibiotic Resistance – Fact Sheet; 2015. Available from: http://www.who.int/mediacentre/factsheets/antibiotic-resistance/en/. [Last accessed on 2015 Dec 05].

3. Spiteri G, Cole M, Unemo M, Hoffmann S, Ison C, van de Laar M. The European Gonococcal Antimicrobial Surveillance Programme (Euro-GASP) – A sentinel approach in the European Union (EU)/European Economic Area (EEA). Sex Transm Infect 2013;89 Suppl 4:iv16-8.
4. World Health Organization. Clinics in Thailand Target Antibiotic-resistant Gonorrhea; 2015. Available from: http://www.who.int/features/2015/thailand-gonorrhea/en/. [Last accessed on 2015 Dec 08].
5. Lawung R, Cherdtrakulkiat R, Charoenwatanachokchai A, Nabu S, Lokpichart S, Prachayasittikul V. Antimicrobial resistance markers as a monitoring index of gonorrhoea in Thailand. Acta Microbiol Immunol Hung 2012;59:157-69.

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