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บทความ (ต่อจากฉบับที่แล้ว; Vol 17 No. 25)

Neisseria Gonorrhoeae: Resistance to Multiple Antibiotics

In combination with *trimethoprim, sulfamethoxazole* maintains acceptable activity against gonococci. Trimethoprim/sulfamethoxazole is highly effective against *Haemophilus ducreyi* and may sometimes be useful as an alternative in chlamydial infections, such as lymphogranuloma venerum.

Rifampicin should not be used to treat gonococcal infection since it rapidly leads to development of resistance during therapy.

Strategies for Diminishing or Delaying Bacterial Drug Resistance in STD Treatment

In General

The misuse of antibiotics should be avoided.

The use of appropriate laboratory procedures such as bacterial culture, microscopic examination, and serologic methods allows correct diagnosis and specific treatment. Many new methods for rapid diagnosis of infections and for antibiotic sensitivity testing are already available. Their integration into routine practice is urgently needed. Antibiotic therapy should be based, not only on clinical assumptions, but also on applicable information from the laboratory, whenever possible.

An effective antibiotic that takes into consideration local resistance patterns should be chosen.

Chemical substances that inhibit the action of antibiotic-destroying enzymes may restore the usefulness of antibiotics and may prove to be very valuable. Beta-lactamase inhibitors, such as clavulanic acid, are now available and their therapeutic value in combination with penicillins and cephalosporins is currently under investigation. Nontoxic substances that eliminate plasmids responsible for resistance from respective bacteria might be useful in reversing resistance to susceptibility.

In Gonorrhea

Systematic surveillance of penicillinase-producing *N. gonorrhoeae* and other resistant strains should be instituted to formulate effective treatment policies.

Treatment regimens should be standardized and based on the prevalence of drug-resistant organisms.

Follow-up examinations should be performed routinely to detect treatment failures.

Early, effective treatment of sexual partners should be performed routinely to slow the spread of drug-resistant organisms.

(*Source:* Dr. A. Luger, President, International Union Against Venereal Diseases and Treponematoses, Vienna, Austria.)

Editorial Note

At present, early, effective treatment of STD patients and their sexual partners is the basic component of STD control efforts. However, in many countries proliferation of inadequate, ineffective treatment regimens utilized by physicians and allied health personnel or purchased by patients directly from pharmacies encourages the development of antibiotic-resistant organisms. At the same time, as a result of changing social and sexual mores, the incidence of gonorrhea is increasing. The frequency of finding resistant organisms is also likely to increase. In some countries the usefulness of inexpensive, easy-to-use, simple antibiotic regimens has been lost, and the cost of STD control efforts will increase proportionately as countries resort to more expensive or complicated antibiotic treatments.

In the foregoing paper, the author discusses briefly some of the advantages and disadvantages of specific antibiotics for the treatment of *Neisseria gonorrhoeae* infections. The following points, however, deserve special emphasis: 1) Each country should take steps to ensure systematic surveillance of antibiotic susceptibility of *N. gonorrhoeae* strains. Special attention should be paid to the detection of the penicillinase-producing strain. 2) Data obtained by surveillance of antibiotic susceptibility should be used to standardize treatment schedules for gonococcal infection. In the absence of susceptibility data, antibiotic regimens that have proved to be effective in countries where this surveillance is carried out should be utilized. Standardized therapies must be readjusted from time to time in response to changes in local antibiotic-resistance patterns.

In a previous issue of the *Epidemiological Bulletin* (Vol. 3, No. 6, 1982) attention was drawn to the general problem of antibiotic misuse. As antibiotic resistance of many bacteria continues to grow, it is important to note the implication of such resistance for STD control, since it is so heavily dependent on correct, effective therapy.

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