

Occurrence and Antibiotic Resistant Pattern of Microbes Isolated from Local Herbal Product (Agbo) Sold at Oja-Bisi in Ado-Ekiti

Babafemi Laoye*

Department of Biological Sciences, College of Sciences, Afe Babalola University, Ado-Ekiti, Nigeria

In most rural and urban settlements, particularly in Nigeria, wells, spring, streams or rivers and lakes serves as major sources of water supply for drinking and other domestic purposes. Unfortunately, many of the available water sources are not potable without some form of treatment which is seldom available in most settings. The use of untreated surface water sources for drinking and for domestic purposes remains a major threat to public health as these could serve as reservoirs the for transfer of antibiotic resistant pathogens. The incidence of resistant bacteria isolated from surface and underground water in six rural settlements in Ekiti State Nigeria was thus investigated. Gram-negative bacteria were isolated from wells, streams and boreholes in six rural settlements in Ekiti State Nigeria between January and April, 2006 and the prevalence of organisms exhibiting multiple antibiotic resistance to tetracycline, amoxicillin, cotrimoxazole, nitofurantoïn, gentamicin, nalidixic acid and ofloxacin was observed. Gram-negative bacterial isolates comprised *Escherichia coli* (22.7%), *Enterobacter aerogenes* (2.5%), *Salmonella* spp. (13.3%), *Shigella* spp. (19.3%), *Proteus* spp. (18.5%), *Klebsiella* spp. (19.3%) and *Pseudomonas*

aeruginosa (4.2%). Over 10% of the bacteria were resistant to four or more antibiotic. Antibiotic resistance was highest in members of the genera *Enterobacter*, *Pseudomonas*, and *Proteus*. Given the prevalence of appalling sanitary facilities and inappropriate public antibiotic use, the possibility of antibiotic resistance selection, faecal dissemination and subsequent contamination of local water sources available for rural residents of the developing world is highlighted. The implication for clinical practice of infections caused by antibiotic resistant strains especially among immunodeficient individuals is also discussed.

Achieving gender equality in all facets of life at the earliest has been looked forward as an important goal by the public health stakeholders. Even though, policy makers have been implementing strategies to accomplish the same, a lot needs to be done, especially in low and middle income nations. As a matter of fact, gender-based violence has been acknowledged as one of the most frequent human rights abuses worldwide, which knows no national, ethnic or financial boundaries.

*Corresponding to: Babafemi Laoye, Department of Biological Sciences, College of Sciences, Afe Babalola University, Ado-Ekiti, Nigeria, Email: babafemif@abuad.edu.ng

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