



Letters to the Editor

Antibiotic misuse in Iran

Corresponding Author:

Hamidreza Mahboobi
Email: hamidrezamahboobi@yahoo.com

Dear Editor,

In last issue of Australasian Medical Journal (AMJ), Fahad B.M et al published a paper titled "Antibiotic usage at a primary health care unit in Bangladesh". (1) The authors reported the possibility of antibiotic misuse in the area where the study was performed. The three most common antibiotics prescribed in this study were ceftriaxone, cefixime, and amoxicillin. As they mentioned antibiotic misuse isn't specific for this area and is going to be a global health issue.

Studies in Iran suggest the possibility of irrational prescribing of antibiotics. For example Faranak Ansari reported on a number of systemic antibiotics prescribed for inpatients during a period of 6 months; ampicillin, cefazolin, ceftizoxime, gentamicin, and cefalexin where the five most commonly used drugs. 62% of antibiotics used were in parenteral forms, 58% were broad-spectrum agents, and 40.2% were broad spectrum parenteral agents. (2)

This pattern of antibiotic use isn't entirely consistent with the study by Fahad B.M (1), but both studies mentioned the possibility of antibiotic misuse in their health centre. The difference in the pattern of antibiotic use could result from the different knowledge of physicians in these areas and their different attitudes toward antibiotic use or different types of antibiotics.

Another problem with antibiotics is self-medication. In a study in 2008 in Iran 42.2% of medical and 48% of non-medical students reported self-medication with antibiotics in the last 3 months. (3) They usually use antibiotics for treatment of sore throat and common cold. Amoxicillin and penicillin were the most common self-medications among these students.

Antibiotic misuse can increase the prescription cost and also can increase antibiotic resistance. Also inappropriate prescription of antibiotics may be harmful for patients.

Educational programs for both physician and patients to prevent irrational antibiotic prescription and self-medication

with antibiotics are needed and can be helpful. Also some studies on the patients and physicians knowledge and attitudes towards antibiotic prescription and use can be helpful to find out the role of these items in antibiotic misuse. Antibiotic prescription should be carefully monitored and their sale without prescription should be limited to reduce the rate of self-medication. Collaboration between physician, patients, pharmacies, hospitals is needed to solve this problem. Also some national drug policies may help to resolve the problem.

Sincerely,

Hamidreza Mahboobi¹, Tahereh Khorgoei¹, Fatemeh Eftekhari¹

- 1- Infectious & Tropical Disease Research Center, Hormozgan University of Medical Sciences (HUMS)

References

- 1- Fahad BM, Matin A, Shill MC, Asish KD. Antibiotic usage at a primary health care unit in Bangladesh. AMJ 2010, 3, 7, 414-421. Doi 10.4066/AMJ.2010.322.
- 2- Ansari F: Utilization review of systemic anti-infective agents in a teaching hospital in Tehran, Iran. Eur J Clin Pharmacol 2001; 57: 541-546. URL: <http://www.ncbi.nlm.nih.gov/pubmed/11699623>
- 3- Sarahroodi, S., A. Arzi, A.F. Sawalha and A. Ashtarinezhad, 2010. Antibiotics self-medication among southern Iranian university students. Int. J. Pharmacol., 6: 48-52. DOI: 10.3923/ijp.2010.48.52.



HIV- Tuberculosis Co-infection in Southern India-a record based study

Corresponding Author:

Name: Dr.Sanjay M.Pattanshetty
Email: sanjay.pattanshetty@gmail.com

Dear Editor,

Tuberculosis (TB) is a leading cause of HIV-related deaths worldwide. In some countries with higher HIV prevalence, up to 80% of people with TB test positive for HIV. Globally approximately 30% of HIV-infected persons are estimated to have latent TB infection. In 2008, there were an estimated 1.4 million new cases of TB among persons with HIV infection and TB accounted for 23% of AIDS-related deaths.¹ In contrast to western countries, where *Pneumocystis jiroveci* pneumonia was the commonest AIDS-defining illness, in developing countries TB is the most common life-threatening opportunistic infection (OI) in patients with HIV/AIDS with about 25 to 65 per cent patients with HIV/AIDS having tuberculosis of any organ. Of the 5.1 million HIV-infected people in India, about half of them are co-infected with M. tuberculosis; approximately 200,000 of these co-infected persons will develop active TB each year in association with HIV infection.² A record based study was conducted in Anti-retroviral therapy (ART) centre of Udipi district, South India from May 2010 to June 2010. Consent was taken from the officer in-charge of ART centre to access the data. Data was collected on *Mycobacterium tuberculosis* infections in patients on ART. Data was analysed using SPSS Version 11.5. The objective of the study was to analyse the TB-HIV co-infection among patients on ART. Majority of the patients were in the age group of 30 to 60 years. Majority of the patients were males.

The total *Mycobacterium* infections reported in patients on ART in the last one year was 177 (63.6%). In a study done by Devi et al TB was found in 55% of HIV infected patients compared to 25% in seronegative patients, which was significant statistically ($p < 0.001$). Combined pulmonary and extrapulmonary form of TB were significantly more common

in HIV seropositive patients ($p < 0.02$) in whom the CD4 cell count was also low (less than 100/cmm).³ The moderately high prevalence of TB among HIV-seropositive patients emphasizes the urgent need for strategies that lead to rapid identification and treatment of coinfection with active or latent TB. The first step is to ensure that HIV-infected persons get a test for TB infection. The rapidly increasing HIV epidemic in other parts of the world could also increase the number of HIV-related TB cases. In order to control TB in high HIV settings, the DOTS strategy should be complemented with additional collaborative TB/HIV activities. The World Health Organization (WHO) recommends 12 collaborative HIV/TB activities, including the strategies like (Isoniazid preventive treatment [IPT], intensified case finding, and infection control for TB), which should be seen as core prevention, care, and treatment services for HIV infection. In addition to these strategies for HIV/TB and other HIV prevention efforts, ART offers considerable hope for prevention of both HIV infection and TB, because risk of developing TB approaches 10%–20% per annum among immunocompromised persons.¹

Sincerely,

Pattanshetty S¹, Kumar A², Pandit V³, Sneha K⁴, Darshan BB⁵

^{1,2,4,5} Department of Community Medicine, Kasturba Medical College, Manipal University, Manipal

³ Department of Medicine, Kasturba Medical College, Manipal University, Manipal

References

1. Tuberculosis and HIV. Available from URL: <http://www.who.int/hiv/topics/tb/en/index.html>. Accessed on 15/08/2010
2. Sharma SK, Mohan A, Kadiravan T. HIV-TB Co-infection: Epidemiology, diagnosis and management. *Indian J Med Res* 2005; 121:550-567
3. Devi BS, Naorem S, Singh JT, Singh BK, Prasad L, Devis ST. HIV-Tb co-infection. *JIACM* 2005;6:220-3