

Kwange S.O. and N.L.M. Budambula (2010). Effectiveness of antituberculosis treatment among patients receiving highly active antiretroviral therapy at Vihiga District Hospital in 2007. *Indian Journal of Medical Microbiology* 28: 21-25.

## **Abstract**

### **PURPOSE:**

In Kenya there is need for proper co-ordination of antiretroviral therapy (ART) and tuberculosis (TB) treatment as most (60%) of the TB patients are also human immunodeficiency virus (HIV) positive. This study aims to determine the difference in response to TB treatment among HIV-negative TB patients and HIV-positive TB patients receiving delayed highly active antiretroviral therapy (HAART) at Vihiga District Hospital.

### **MATERIALS AND METHODS:**

A total of 116 patients were diagnosed using direct smears from sputum prepared and stained using the Ziehl-Neelsen procedure. The patients were offered HIV testing and counselling, and then categorized into category A (PTB with HIV n=50) and category B (PTB without HIV co-infection n=66). They were put on the same TB chemotherapy of a short course comprising of: Two months of Rifampicin-R, Isoniazid-H, Pyrazinamide-Z and plain Ethambutal-E, followed by six months of Ethambutal and Isoniazid. The main outcome measured was the sputum conversion rate from positive sputum to negative sputum. One way analysis of variance (ANOVA) was used to test the null hypothesis.

### **RESULTS:**

Fifty patients (43%) were found to be HIV positive and were put on HAART. The other 66 patients (57%) were HIV negative. The sputum conversion rate for HIV positive TB patients after two months and five months was 88 and 94%, respectively. The sputum conversion rate for HIV negative TB patients at two months and after five months was 92 and 97%, respectively. However, there was no significant difference in the bacteriological outcome responses to TB chemotherapy between the two groups.

### **CONCLUSION:**

The high sputum conversion rates in the two groups indicated good control and management of TB. Findings in this study indicated that delayed use of HAART during TB treatment leads to better outcome in TB treatment. The study recommends more concerted efforts to provide TB treatment to HIV positive TB patients in Kenya.