Abstract

Drug resistant tuberculosis (T.B) is a state when *Mycobacterium tuberculosis* (MTB) organisms are resistant to antimicrobial agents at the levels attainable in blood and tissue. Scarce data exists on the prevalence of resistance to first line anti-tuberculosis drugs in populations with high rates of tuberculosis and human immunodeficiency virus (H.I.V). Strains of MTB complex from MGIT were subjected to drug susceptibility testing for isoniazid (INH), Rifampicin (R), Streptomycin(S), and Ethambutol (E) using the proportional method on (MGIT). A total of 145 TB patients were enrolled for study. Of the 138 patients who had valid results for analysis, 79(57.2%) were male and 59(42.8%) were female.

Most of the patients (20.3%) were aged between 35-39 years with the lowest proportion (3.6%) being in the younger category <20 years. Among the pulmonary tuberculosis patients 34% were new cases while 66% were retreatment cases. A total of 43(31.2%) strains showed resistance to at least one drug tested, while 112(81.2%) were susceptible. The isolates showed different resistance patterns with mono-resistance in 15(11%) isolates, total multi- drug resistance (MDR) in 6(4.3%) isolates with new and retreatment cases being 0(0.0%) and 6(6.6%) respectively. Mono-resistance was recorded in all four drugs tested. The isolates were resistant to the antibiotics as follows; 16(17.6% and 0(0.0%) were resistant to INH; 9(9.9%) and 0(0.0%) were resistant to R; 10(11.0%) and INH (2.1%) were resistant to E; 7(7.7%) and 0(0.0%) were resistant to S; 6(6.6%) and 0(0.0%) were multi drug resistant among retreatment and new cases respectively. Our study concluded that there were high levels of drug resistance among those previously treated for TB.