Dormancy is a mycobacterial property of persistence in a viable nonreplicating form. It stands for a real community health threat because of its contribution to drug resistance and recurrence of tuberculosis. In order to arrange for a trial of solving this problem, the basic mechanisms by which mycobacterium become dormant were considered in order to partially reverse these factors. Factors that induce partial reactivation from dormancy include: presence of oxygen free radicals and Lalanine nutrient supply. For evaluating antituberculous regimens that include the test agents added to the conventional rifampicin plus INH, both in vitro (MIC) and in vivo (mice) models were used. Two fold serial dilution of modified Lwenstein-Jensen medium have showed equipotent inhibitory effect of metranidazole, L-alanine and metronidazole plus ginsenoside when each added to rifampicin plus INH but those were significantly more potent than rifampicin plus INH only regimen; $P< 0.05$ at intial concentrations of 4 microgram/ ml for each except ginsenoside 8 microgram/ ml. In vivo assessment include dividing 36 mice into 6 groups 5 of them were induced with tuberculosis by inoculation of subcutaneous aspect of left abdominal side with 5000 CFU of *M. tuberculosis* and monitored for temperature, nodule diameter and intramacrophage mycobacteria count in histopathological analysis along 4 weeks of treatment course. Regimen that included metronidazole plus ginsenoside added to rifampicin plus INH had the more potent antituberculous activity in comparism with other regimens in regard to prevention of increase in body temperature and decreasing nodule diameter from 7 mm to 2 mm whereas nodular intramacrophage bacilli were just 4 bacilli in comparison with untreated mean 8 3. Other regimens came second in potency and were significant in comparism with rifampicin plus INH only regimen. From the overall results, there was a significant augmentation of antituberculous potency upon adding some dormancy reversal metronidazole and L-alanine that could be a promising future regimen for eradicating dormant persistant tuberculosis.