A mathematical model of mixed infection in Tuberculosis (TB)

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We use ordinary differential equations to develop a model of mixed infection in TB. It is analysed mathematically by finding its equilibrium points and their stability. The model is shown to have multiple endemic equilibria and also exhibits the phenomenon of backward bifurcation whenever its basic reproductive number, R_0 is less than unity for certain parameter values. Numerical analysis of the model shows that mixed infection may help explain high TB incidence in certain areas.