عنوان مقاله:

Mathematical Modeling and Analysis of HIV/AIDS with Herbal Medicine and Antiretroviral Treatment

محل انتشار:

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خلاصه مقاله:

In this paper, a deterministic mathematical model is formulated to study the dynamics of human population subjected to HIV/AIDSwith Herbal medicine and ART as treatments. The total population is divided into eight compartments. The existence, uniqueness, positivity, and boundedness of the solutions are shown. Both treatments have a positive impact on the reduction of viral load in the body. The stability analysis of equilibrium points are are done. Disease free equilibrium point is locally asymptotically stable if the reproduction number is less than unity and unstable for greater than unity.

کلمات کلیدی:

HIV, Herbal medicine, Art, Reproduction Number, Stability

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