Fig 4. The comparison of the time series solutions of infectious human with antiretroviral drugs and without antitretroviral drug

As shown in figure 4, we can see that number of infectious human population with antiretroviral drugs converge to the equilibrium state faster than the number of infectious human population withoutantiretroviral drugs. Thus, we can conclude that the antiretroviral drugs influence to the transmission of HIV/AIDS.

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P. Pongsumpun received her bachelor of science in mathematics (second class honors)and the doctor of philosophy in mathematics (international programme) from MahidolUniversity, Thailand. From 2004 to 2012, she was an as assistant professor ofmathematics. From 2012 till date, she is an associate professor of mathematics, thesis Ph.D. and M.Sc. advisors in King Mongkut's Institute of Technology Ladkrabang, Thailand.Her research interests are mathematical modelling in medical science, differential equations and numerical analysis.

Fig 3. Numerical results of our model for L > 1.

We can see that our results converge to the endemic equilibrium points for L > 1.

III. CONCLUSION

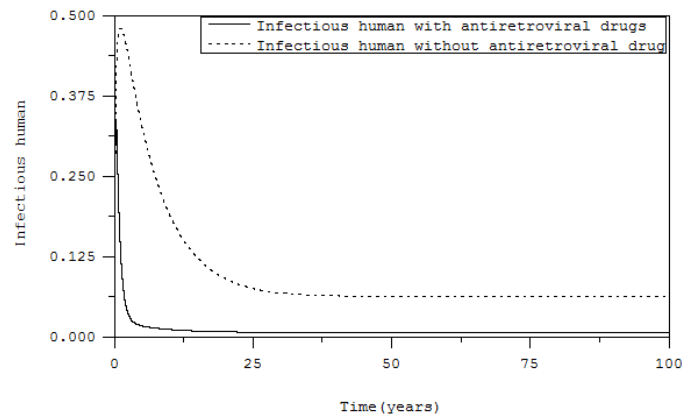In this paper, we describe the transmission of HIV/AIDS by mathematical modeling. The receiving of antiretroviral drugsand without antiretroviral drug are considered.