

AN IMPULSIVE MODEL OF CHRONIC MYELOID LEUKEMIA

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In this work we investigate an impulsive chemotherapy model for leukemia diseases, which corresponds to a population of cells containing normal cells, sensitive and resistant tumor cells. First we study the exponential stability of trivial periodic positive solution corresponding to the healthy case, after that we study the possibility to have bifurcation of nontrivial periodic positive solutions corresponding to the onset of the tumor. To analyze the bifurcation we use Lyapunov-Schmidt method, which is analyzed with respect to the treatment period parameter.

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