On the stability of the steady-state solutions of cell equations in a tumor growth model

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Abstract

In this study, we provide the stability analysis of the steady state solutions of endothelial, pericyte and macrophage cell equations in a mathematical model in tumor angiogenesis. We do this by studying phase plane analysis of the system of ordinary differential equations obtained from the cell equations. We also discuss the biological importance of the analysis in tumor angiogenesis.

Keywords: Angiogenesis, Phase plane analysis, Tumor cells

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