

Glioblastoma multiforme is an aggressive brain cancer with grim prognosis. Its morphology is characterized by layered structure, i.e., an inner necrotic core and an outer rim of proliferating cells. This structure can be observed in MRI images. A mathematical model of glioma growth with explicit birth and death rate is proposed to fit the image data. This model demonstrates a traveling wave. Approximate wave form is found for certain growth and death terms and matches numerical simulation. In addition, parameter identifiability is also shown for specific cases.