Role Of Micro-RNA In Glioma Pathogenesis And Invasion

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Similar to other neoplastic lesions, glioma growth and invasion depends on glioma stem cells (GSC). The tumor burden of glioma consists GSC as well as non-GSC. The growth and invasion may seem to be incoherent but there is a significant communication of GSC and non-GSC with the normal cells and microenvironment surrounding them as well as with each other. The role of micro-RNA (miRNA) in this communication is being studied in more detail. The underlying intracellular mechanism that gets influenced by miRNA is also being studied in detail. Out of few thousand of miRNA discovered so far, many miRNA have been found to influence glioma growth and invasion one way or the other. Of those affecting invasion, miR-221, miR-21 and miR-222 seem to be playing a more significant role. An extrapolation of this information is devising treatment plans that influences the miRNA based communication directly.