ABSTRACT

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Microglia-T cell conversations in brain cancer progression.

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The highly immunosuppressive and heterogeneous milieu of brain malignancies contributes to their dismal prognosis. Regardless of their cellular origin, brain tumors grow in an environment with various specialized organ-resident cells. Although homeostatic microglia contribute to a healthy brain, conversations between disease-associated microglia and T cells compromise their individual and collective capacity to curb malignant growth. We review the mechanisms of T cell-microglia interactions and discuss how their collaboration fosters heterogeneity and immunosuppression in brain cancers. Because of the importance of microglia and T cells in the brain tumor microenvironment, it is crucial to understand their interactions to derive innovative therapeutics.

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