

Introduction

The innate immune system is the body’s first line of defense against danger, either from pathogens or damaged host tissue. The central nervous system (CNS), once believed to be a victim of chemical warfare between pathogens and professional immune cells, is now recognized as an active player in the innate immune defense against not only infection, but also injured tissue and malignancy

Methods

Here, we used immunohistochemistry to measure the expression levels of inflammasome proteins in 25 human glioma samples (both high and low-grade.)

Results

We found that inflammasome proteins ASC, caspase-1, Pannexin-1, and NALP-1 are expressed in human gliomas. The expression pattern is highly variable, suggesting important molecular differences among both high and low-grade gliomas.

Conclusions

This is the first characterization of inflammasome proteins in human glioma samples, and the high expression levels suggest an important role for the inflammasome in primary CNS tumor biology.

Learning Objectives

Gliomas express inflammasome proteins.

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