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## The role of NGAL, MMP-9 and NGAL/MMP-9 in brain tumors

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**B**rain tumors are tumors with clinical conditions that are mainly influenced by their location instead of their histopathological grade. Brain tumors have bad progression, because although various diagnostic and therapeutic modalities have been created to improve outcomes, the tumors still often recurs. Recently, neutrophil gelatinase-associated lipocalin (NGAL), which binds into the enzyme matrix metalloproteinase-9 (MMP-9) and forms the NGAL/MMP-9 complex, is found to play a role in the development of malignancies. Several studies have demonstrated that these substances are known to support the tumor development by degrading the basal membrane and extracellular matrix and allowing tumor angiogenesis, invasion and metastasis. In this article, we will discuss about the role of NGAL, MMP-9 and NGAL/MMP-9 in brain tumors. Further studies are needed to ensure that these substances can be utilized to monitor the outcome of patients with brain tumors in the future.

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