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### ASPM gene expression in medulloblastoma.

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#### Abstract

**PURPOSE:** Medulloblastomas are the most common malignant tumors of the central nervous system in childhood. The incidence is about 19-20% between children younger than 16 years old with peak incidence between 4 and 7 years. Despite its sensibility to no specific therapeutic means like chemotherapy and radiotherapy, the treatment is very aggressive and frequently results in regression, growth deficit, and endocrine dysfunction. From this point of view, new treatment approaches are needed such as molecular targeted therapies. Studies in glioblastoma demonstrated that ASPM gene was overexpressed when compared to normal brain and ASPM inhibition by siRNA-mediated inhibits tumor cell proliferation and neural stem cell proliferation, supporting ASPM gene as a potential molecular target in glioblastoma. The aim of this work was to evaluate ASPM expression in medulloblastoma fragment samples, and to compare the results with the patient clinical features. **METHODS:** Analysis of gene expression was performed by quantitative PCR real time using SYBR Green system in tumor samples from 37 children. The t test was used to analyze the gene expression, and Mann-Whitney test was performed to analyze the relationship between gene expressions and clinical characteristics. Kaplan-Meier test evaluated curve survival. **RESULTS:** All samples overexpressed ASPM gene more than 40-fold. However, we did not find any association between the overexpressed samples and the clinical parameters. **CONCLUSION:** ASPM overexpression may modify the ability of stem cells to differentiate during the development of the central nervous system, contributing to the development of medulloblastoma, a tumor of embryonic origin from cerebellar progenitor cells.

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