Letter to the Editor

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Molecular Basis of Distant Medulloblastoma Recurrence

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We read with interest the report of a case of delayed recurrence of medulloblastoma (MB) in an uncommon site in an 11-year-old male patient [1]. Distant MB metastasis usually presents as leptomeningeal spread [2]. However, Singh et al. [1] describe a recurrent tumor arising from the frontal horn with no leptomeningeal involvement. The authors discuss the possibility that the use of a ventriculoperitoneal shunt into the ventricles might have reversed the cerebrospinal fluid flow, allowing the traveling of tumor cells. However, the possibility that a de novo lesion arose at the distant site seems more likely.

It would be interesting to examine such cases of recurrent MB in distant and uncommon sites for their molecular subgrouping. The occurrence of subgroup-specific patterns of MB recurrence has been recently demonstrated. For example, local recurrences are more frequent in SHH (sonic hedgehog) MB, whereas leptomeningeal metastatic recurrences are more common in group 3 and 4 tumors. It is also noteworthy that subgroup classification remains constant in recurrent tumors compared with primary tumors [3], although there are significant genetic differences between primary tumors and recurrent tumors arising after therapy [4]. Understanding which MB subgroups are more likely to recur at distant and uncommon sites, and uncovering the biological identity of distant metastases, may help to identify the origin of these lesions and ultimately to develop more specific treatments focusing on the metastatic compartment.

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