Case report: diffuse midline glioma, H3 K27-altered.

Summary of Findings

This case report by Uchimura et al. describes a rare and diagnostically challenging presentation of a **diffuse midline glioma, H3 K27-altered**.

The key findings are:

1. **Unusual Growth Pattern:** The glioma presented with a **gliomatosis cerebri-like growth pattern**, meaning it showed widespread, diffuse infiltration throughout the brain rather than forming a single, well-defined tumor mass. It initially involved areas distant from the brain's midline, such as the cerebral hemispheres.

2. **Atypical Disease Progression:** Over time, the tumor progressed **towards** the classic midline structures (such as the thalamus and brainstem), which is the more typical location for this type of glioma. This "progression toward midline" is an unusual and noteworthy feature of this case.

3. **Diagnostic Challenge:** The initial presentation, lacking a clear midline mass, made a clinical diagnosis difficult. The definitive diagnosis of "diffuse midline glioma, H3 K27-altered" was only confirmed through **histopathological and molecular analysis** (specifically, the detection of the H3 K27 alteration) after a biopsy.

4. **Clinical Implication:** The case highlights that diffuse midline glioma, H3 K27-altered, can rarely manifest with a gliomatosis cerebri growth pattern and may not initially involve the midline. Therefore, this diagnosis should be considered even in diffusely infiltrating tumors that are not midline-centric at first, necessitating a biopsy for molecular confirmation.

Bibliography (Vancouver Style)

1. Uchimura M, Araki A, Eda H, Kimura Y, Hayashi K. Diffuse midline glioma, H3K27-altered: a rare presentation with gliomatosis cerebri growth pattern and progression toward midline. Brain Tumor Pathol. 2025 Sep 17. Epub ahead of print. PMID: 40960709.

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