ABSTRACT

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A Unique Case Report of Infant-Type Hemispheric Glioma (Gliosarcoma Subtype) with TPR-NTRK1 Fusion Treated with Larotrectinib.

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Herein, we present a rare case of a nine-month-old boy diagnosed with infant-type hemispheric glioma (gliosarcoma subtype) at the left frontal lobe. Following subtotal resection, the patient started chemotherapy with the BABY POG protocol. We describe the clinical diagnosis, histological characteristics, radiological features, molecular aspects, and management of this tumor. A comprehensive molecular analysis on the tumor tissue showed a TPR-NTRK1 gene fusion. The patient was treated with a TRK inhibitor, larotrectinib, and exhibited a stable disease with residual lesion following 8 months of target therapy. The present study is the first report of an infantile gliosarcoma harboring NTRK1 rearrangement treated with larotrectinib.

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