ABSTRACT

J Pediatr Hematol Oncol. 2021 Jan;43(1):e141-e145. doi: 10.1097/MPH.0000000000002017.

Current Salvage Treatment Strategies for Younger Children (<10 y of Age) With Progressive Low-grade Glioma After Initial Chemotherapy in North America: A Web-based Survey.

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Pediatric low-grade gliomas (LGGs) are the most common brain tumors in children. Treatment of pediatric LGG can often be challenging, particularly when not resectable and refractory or recurrent following standard chemotherapy regimens. There is no current accepted standard of care salvage regimen for progressive LGG after the failure of first-line chemotherapy. A web-based survey was distributed to pediatric cancer centers throughout North America to inquire regarding institutional preferences of salvage treatment strategies after initial chemotherapy for LGG in children less than 10 years of age, as well as molecular testing preferences. Highlights from the survey results were as follows: vincristine/carboplatin (VC) and vinblastine (VBL) were the top 2 preferred salvage regimens for non-BRAF-altered pediatric LGG. BRAF and MEK inhibitors were the most preferred salvage regimens for BRAF V600e-mutated and BRAF fusion-positive pediatric LGG, respectively. VC ranked second. As high as 47.8% of North American centers would use conformal radiation for younger children with non-neurofibromatosis type 1 LGG after failing 2 to 3 chemotherapy regimens. Overall, 87% (87%) of North American institutions obtain some type of routine molecular testing for non-neurofibromatosis type 1-associated pediatric LGG cases. Less than 60% of centers obtain routine H3 K27M molecular testing for pediatric LGG with a midline location.

DOI: 10.1097/MPH.0000000000002017
PMID: 33235141 [Indexed for MEDLINE]