INHIBITORS

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DEI.04. RACE AND ETHNICITY DIFFERENCES IN TREATMENT-LIMITING TOXICITIES IN PATIENTS TREATED WITH MEK INHIBITORS
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BACKGROUND: MEK inhibitor (MEKi) therapies are used to treat pediatric low grade glioma (pLGG) and plexiform neurofibroma (PN). The toxicity profile reported in clinical trials have been favorable, but samples have been demographically homogeneous. In this study, we evaluate differences in treatment-limiting toxicities by race and ethnicity. METHODS: This is a single-institution, retrospective study of patients treated with MEKi on the Sprint (NIH plexiform) trial or off-study for pLGG or PN from 2014 to 2023. Patient data was abstracted from clinical records. Treatment-limiting toxicity was defined as temporary hold, dose reduction, or discontinuation due to toxicity. RESULTS: Fifty-eight evaluable patients received MEKi for PN (N=40) or pLGG (N=18), 5 of whom received multiple agents. Selumetinib was used in 44 cases, trametinib in 16, and binimetinib in 3. Median age was 11.0 years (IQR 7.7-14.5) and 37(64%) were male. Twenty-nine (50%) patients identified as White, 15(26%) Black, 6(10%) Asian, 4 (7%) Hispanic, and 4(7%) other/declined. Treatment-limiting toxicity occurred in 27(47%). Each demographic group had a similar rate of treatment-limiting toxicities; 52%(n=15) of White, 40%(n=6) of Black, 66%(n=4) of Asian patients, and 50%(n=2) of Hispanic patients. The most prevalent treatment-limiting toxicity was skin-related (N=10; 6 White, 1 Black, 2 Asian, 1 Hispanic) and included rash, paronychia, and impetigo. Other recurring toxicities were gastrointestinal (N=6, 5 White, 1 Black), edema (N=4, 1 White, 1 Black, 1 Asian, 1 Hispanic), cardiac (N=2, 1 White, 1 Black), and weight gain/loss (N=4, 2 White, 2 Asian). CONCLUSIONS: Frequencies of treatment-limiting toxicities were similar across race and ethnicity. Dermatologic and gastrointestinal toxicity were more commonly seen in White patients relative to other adverse events. Findings should be interpreted with caution due to sample size, but support future efforts to understand demographic differences in MEKi toxicity.