RO-21. A PROSPECTIVE ASSESSMENT OF HRQOL OUTCOMES IN MEDULLOBLASTOMA PATIENTS TREATED WITH PROTON RADIOTHERAPY (PT)
Torunn I. Yock, Saveli I. Goldberg, Ralph E. Vatner, Dillon E. Gaudet, Sara E. Gallotto, Elizabeth A. Weyman, Shannon M. MacDonald, David H. Ebb, Mary Huang, Allison M. Friedmann, Robin M. Jones, Nancy J. Tarbell, and Karen A. Kuhlthau; Massachusetts General Hospital, Boston, MA, USA

BACKGROUND: HRQoL outcomes are not well described in medulloblastoma. We report the child-self-report (CSR) and parent-proxy-report (PPR) PedsQL HRQOL Core and Brain Tumor scores in a proton-treated (PT) cohort. METHODS: Medulloblastoma patients were enrolled on a prospective HRQoL protocol assessed during PT (baseline) and annually from 2005-present. Mixed-model analysis was performed to determine longitudinal trajectory of PedsQL scores and dichotomized by variables: age (<8 v. 8+), PT boost volume (TB v. WP), posterior fossa syndrome (PFS, yes/no), sex, M-stage, and socioeconomic status (SES). RESULTS: 116 patients/parents completed 966 PedsQL Core and Brain Tumor at 4 years median FU. Children report baseline Total-Core-Score (TCS) of 66.3 rising 1.9 points annually (p = 0.001). Parents report baseline TCS of 59.5 rising 2.2 annually (p = 0.001). At baseline, children with PFS score lower (66.4 v. 49.2, p = 0.001). Children with PFS, M0, and WP boost gain significantly more points annually. Parents report similar trends. Scores were not affected by age, sex, or SES. Physical, psychosocial, and cognitive subscores were affected by boost field, M-stage, and PFS. At latest FU of each patient, CSR TCS was 76.0, only 3.6 points lower than healthy control children (p = 0.07), but parents report 69.3, 11.3 points lower than controls (p < 0.001). CONCLUSIONS: In children treated with PT for medulloblastoma, QoL scores rise with time, but the rise is greater in children with PF Syndrome, WP boost, and M0 disease, whereas age at treatment, sex, and SES do not have an effect. At latest FU, scores are somewhat lower than the control population.