HG-113. RADIOGRAPHIC FINDINGS IN PEDIATRIC PATIENTS WITH DIFFUSE INTRINSIC PONTINE GLIOMA (DIPG) SURVIVING ONE YEAR POST-DIAGNOSIS
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BACKGROUND: DIPG remains a terminal diagnosis. Many centers are reporting patients surviving greater than a year post-diagnosis as novel treatments and modalities are developed. METHODS: We identified all patients treated 2000 - present who met the following criteria: DIPG, alive one year after diagnosis, scans one year post diagnosis performed at MSKCC. All available images for these patients were then reviewed for sequences performed, patterns of enhancement, perfusion and spectroscopy data where available. RESULTS: 15 patients (median survival 22 months, range 13-39 months) were identified and 55 separate MRIs were reviewed (median 3 per patient, range 1 - 12). All patients were treated with upfront radiation. 3 out of 15 patients did not have evidence of any contrast enhancement until after one year post diagnosis. Of the 3 patients who had no enhancement before one year, median survival was 26 months (range 22-39). Of the 12 patients who showed extensive (> 25%) enhancement at diagnosis or before one year, median survival was 20.5 months (range 13-33). Development of enhancement was often noted with biological therapies (Akt/mTOR inhibition, CDK4/6 inhibition, PD-1 inhibition). Notable was the lack of standardization of MR techniques, especially higher level techniques including spectroscopy, perfusion and diffusion tractography, limiting analysis. CONCLUSIONS: Extensive contrast enhancement or at either diagnosis or before one year post diagnosis may suggest a slightly decreased survival. Multi-institutional standardization of imaging protocols for patients one year post-diagnosis would benefit further studies on longer term survivors.