A 14-year-old boy presented with complaints of headaches and vomiting for 1 month; difficulty in walking, and slurred speech for 1 week, with Lansky Performance Score (LPS) of 20. Eight years before this admission, he underwent surgical excision and 3D-conformal RT for Craniopharyngioma. His recent MRI brain was suggestive of DIPG and after a multidisciplinary discussion re-irradiation (30Gy in 10 fractions) was given. He has been alive for 5 months since diagnosis with improved symptoms and LPS (70). Including the index case, 19 cases of RIMGs in CP were identified. All except one were reported from high-income countries. Only 4 involved the pons/brainstem. The median age at CP diagnosis was 7.0 years (2.0-22.0 years), and with RIMG was 18 (6.8-41.0 years). Median latency period was 10.0 years (4.5-25.0 years). The female-to-male ratio was 1.8:1. The median previous RT dose was 54.8 Gy (49.3-60.1 Gy) with 37% cases treated with 3D conformal and 37% with conventional RT (not specified in 26%). Cerebral cortex (66.6%) was the most common site for the RIMG with temporal lobe predisposition. Chemotherapy was given in 56%, surgical excision in 50% and repeat RT in 31% cases with a median survival of 4 months (0-13 months). CONCLUSION: We report the first case of radiation-induced DIPG in pediatric Craniopharyngioma in an LMIC. RIMG appears to be a rare occurrence in CP and doesn’t seem to be associated with the RT type. The overall prognosis is extremely poor.

ABSTRACT CITATION ID: NOAE064.112

DIPG-59. RADIATION-INDUCED DIPG IN A CHILD PREVIOUSLY IRRADIATED FOR CRANIOPHARYNGIOMA: CASE REPORT AND LITERATURE REVIEW

Rahat Ul Ain1, Laeeq Ur Rehman1, Rabia Aqeel Qaiser1, Amber Goraya1, Zeena Stilmar1, Ibrahim Qaddoumi2, Naureen Mushtaq1, Eric Bouffet2,

1University of Child Health Sciences, The Children’s Hospital Lahore, Lahore, Punjab, Pakistan, 2St Jude Children’s Research Hospital, Memphis, TN, USA, 3Agha Khan University Hospital, Karachi, Sindh, Pakistan, 4Hospital for Sick Children, University of Toronto, Toronto, Canada

BACKGROUND: Radiation-induced second malignancies occur in a subset of patients following cranial radiation therapy (RT). In Craniopharyngioma (CP), adjuvant RT is commonly recommended for residual tumor or recurrence, and radiation-induced malignant gliomas (RIMGs) are rarely reported. METHODS: We report a case of radiation-induced diffuse intrinsic pontine glioma (DIPG) in pediatric Craniopharyngioma and conducted a review of previously reported cases. RESULTS: A 14-year-old boy pre-