

recurrent beta-catenin nucleopositive Wnt-MBs treated with an irradiation-sparing strategy, incorporating HDCx/AuHPCR. **PATIENT 1:** A nine-year-old female experienced local recurrence of a non-metastatic Wnt-MB nine months after gross total resection (GTR) followed by 18Gy craniospinal irradiation (CSI) with primary site boost to 54Gy, accompanied by weekly vincristine, followed by a maintenance regimen of nine cycles of cisplatin/lomustine/vincristine alternating with cyclophosphamide/vincristine every third cycle. GTR of the relapsed tumor was followed by three cycles of HDCx/AuHPCR. She is disease-free for over three years following relapse treatment. **PATIENT 2:** A 17-year-old male initially underwent GTR, followed by 23.4Gy CSI with 54Gy posterior fossa boost with concomitant weekly vincristine, followed by a maintenance regimen that included nine alternating cycles of vincristine/lomustine/cisplatin and cyclophosphamide/vincristine. Isolated right frontal horn metastatic recurrence developed 19 months post-treatment; three cycles of irinotecan/temozolomide/bevacizumab and gamma-knife radiosurgery produced complete response. A second isolated metastatic recurrence within the left frontal horn occurred 13 months post-treatment, which was treated with two cycles of cyclophosphamide/etoposide followed by two cycles of HDCx/AuHPCR. MRI of the brain showed no residual tumor one month post-treatment. He currently awaits follow-up stereotactic radiosurgery. **CONCLUSION:** Patients with recurrent Wnt-MB may be treated with curative intent using a multidisciplinary approach that includes HDCx/AuHPCR, and minimization or avoidance of re-irradiation.

#### MBCL-48. OUTCOMES OF TREATMENT BASED ON THE ST. JUDE MEDULLOBLASTOMA-96 REGIMEN FOR JAPANESE CHILDREN WITH MEDULLOBLASTOMA

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Medulloblastoma is a type of malignant embryonal tumor in childhood that is considered to require multiagent chemotherapy followed by radical resection and craniospinal irradiation (CSI). However, the outcomes of chemotherapy for this tumor in Japan are unclear. Here, we performed a multicenter retrospective study to determine the prognosis of pediatric medulloblastoma patients in Japan treated with the St. Jude medulloblastoma-96 (SJMB96) regimen. Thirty patients with newly diagnosed medulloblastoma received treatment with the SJMB96 regimen at Juntendo University Hospital in Tokyo (n=10), Saitama Medical University International Medical Center in Saitama (n=10), and Tohoku University Hospital in Miyagi (n=10) from 2011 to 2018. All patients underwent tumor resection and CSI, with radiation doses of 23.4Gy for standard-risk patients (n=11) and 39.6Gy for high-risk patients (n=19). Six weeks after radiation therapy, patients received four cycles of high-dose chemotherapy with autologous peripheral blood stem cell transplantation according to the SJMB96 regimen. We found that 5-year overall survival was 80.8% among standard-risk patients and 74.2% among high-risk patients. No treatment-related deaths occurred. Eight patients who experienced recurrence died within 80 months of diagnosis. As these treatment outcomes are comparable to those previously reported outside of Japan, our findings indicate that this regimen is a therapeutic option for medulloblastoma patients in Japan.

#### MBCL-50. DISMAL OUTCOME OF HIGH RISK MEDULLOBLASTOMA TREATED WITH CHEMOTHERAPY FIRST APPROACH IN MALAYSIA

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**INTRODUCTION:** Patients with high risk medulloblastoma are treated either with high dose chemotherapy or hyperfractionated radiotherapy. Both approaches are not feasible in resource-limited countries. POG9031 trial has reported favourable outcome for high risk medulloblastoma using

standard chemotherapy and radiotherapy only. Hence, we have adopted the protocol using chemotherapy first approach due to logistical reasons. **OBJECTIVE:** To review the outcome of children diagnosed with high risk medulloblastoma in Hospital Kuala Lumpur. **METHODS:** Patients diagnosed with high risk medulloblastoma between January 2015 and June 2018 treated using the chemotherapy first approach as per POG9031 protocol were identified. Data was then extracted and analysed. **RESULTS:** Nine patients were identified, 3 boys and 9 girls. Median age was 9.3 years (range 2.6 – 15.9 years). Median follow up for survivors are 3.6 years. Five patients (55.6%) had macroscopic metastatic disease at diagnosis. All patients had significant residual disease post-op. Only 3 patients are disease free till last follow up, giving a 3 years event free survival of 16%. Of the 6 patients who had relapsed, 4 have died, giving a 3 years overall survival of 46%. Patients with no metastasis at diagnosis (M0) fared better with 3 years event free survival of 38%, but 3 years event free survival for patients with macroscopic metastatic disease (M+) was 0%. **CONCLUSION:** Outcome of children with high risk medulloblastoma treated with chemotherapy first approach was dismal.

#### MBCL-51. POST-AUTOLOGOUS HEMATOPOIETIC CELL TRANSPLANTATION (AUHCT) PRACTICES FOR YOUNG CHILDREN WITH MALIGNANT BRAIN TUMORS

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**BACKGROUND:** “Head Start” protocols have used autologous hematopoietic stem cell transplant (AuHCT) for infants and young children with malignant brain tumors in order to avoid cranial irradiation. The post-AuHCT practice for children with a brain tumor diagnosis varies greatly. The goal of this research study is to explore practices and attitudes about post-AuHCT care for children with brain tumors. **DESIGN:** An anonymous REDCap survey link was provided to all site primary investigators and additional support personnel at “Head Start” institutions. The survey questions defined the role of the medical provider completing the form and explored the various practices relating to transition, management, communication and overall satisfaction. **RESULTS:** Twenty-one individual replies have been received so far. The majority report that prophylactic medicines were discontinued upon WBC recovery; however, management of discontinuation was split evenly between the neuro-oncology and stem-cell transplant teams. Nearly half of responders follow T-cell recovery following transplant without immunology guidance. Post-AuHCT vaccination practices are highly variable, with no clear consensus. Lastly, most responders reported adequate ease of transition and communication between the neuro-oncology and transplant teams. **CONCLUSIONS:** This work underscores the need for both multidisciplinary communication for children with brain tumors in the post-AuHCT period and for the development of standardized vaccination and other prophylaxis practices.

#### MBCL-52. ENDOCRINE PROFILE AFTER MEDULLOBLASTOMA TREATMENT

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**BACKGROUND:** Treatment of medulloblastoma has evolved substantially with more chemotherapy, risk-adapted dosing of radiotherapy (RT) and new RT techniques. We present the endocrine profile for our patients treated over a 20-year period. **METHODS:** The charts of patients treated for medulloblastoma between 1/1/00 and 31/12/19 were reviewed. 105 were available. Group 1 received chemotherapy alone, Group 2 received 23.4 Gy whole CNS RT with a posterior fossa (PF) boost to 54 Gy, Group 3 received > 35 Gy whole CNS RT with PF boost to 54–59 Gy, Group 4 received PF RT to 54 Gy. All received chemotherapy according to national guidelines or clinical trials relevant at the time. **RESULTS:** Group 1 (M:F 11:6, 7 survivors mean age 2 years range 1–7) had no endocrinopathies. At 5 years from diagnosis Group 2 (M:F 15:13) and Group 3 (M:F 35:14) had the following % RESULTS: Survival 77:61; Growth Hormone deficiency 92:100; Thyroid deficiency 75:81; ACTH deficiency 42:33. Girls were more likely to need sex hormone replacement than boys. Group 4 (M:F 7:5 mean age 2) were all treated in the first decade. 3 survivors, one GH deficiency, one thyroxine deficiency, one both. **CONCLUSIONS:** There is a trend to earlier endocrinopathies in the group 3 vs group 2 patients, but it does not reach statistical significance. Girls are more likely to need sex hormone replacement than boys. This investigation provides a contemporary profile of