times greater risk of achieving a Lansky/Karnofsky score of fewer than 90 points 6 months after diagnosis (p=0.006). Ten patients had pre- and post-treatment ophthalmologic assessment, either visual acuity or visual evoked potentials. Five had bilateral and attended one third improved after treatment. CONCLUSIONS: These results show inferior outcomes compared to high-income countries, influenced importantly due to morbidity after surgical resection. This data can be used to prospectively optimize treatment at our institute and other middle-income countries through a multidisciplinary neuro-oncology team.

LINC-05. SUCCESSFUL RESPONSE TO BEVACIZUMAB/IRINOTECAN/TEMZOLOMIDE IN A PROGRESSIVE CHOROID PLEXUS CARCINOMA: A CASE REPORT

Regina Navarro-Martín del Campo1, Ivan Pozos-Ochoa1, David Bañuelos-Gallo1, Fernando Sanchez-Zubieta2, Alaia L. Orozco-Alvarezo3, Hospital Civil de Guadalajara Dr Juan I Menchaca, Guadalajara, Jalisco, Mexico. Global Alliance of Pediatric Oncology, international, x, USA

Choroid plexus carcinomas (CPC) are a rare type of aggressive pediatric brain tumors with poor survival rates, and no standard curative therapy after relapse. We report the case of a 1-year-old male, with a right lateral ventricular CPC and disseminated leptomeningeal disease. First line therapy we administered due to hemorrhage and a second near relapse. After the second surgery six cycles of ICE regimen were applied. The MRI after primary therapy showed progression with a new lesion located on the optic pathway and leptomeningeal disease. This point a second line consisting of Bevacizumab 10 mg/kg and Irinotecan 150 mg/m2 every 2 weeks and Temozolomide 150 mg/m2 every 4 weeks was given. He received up to 24 cycles. His imaging demonstrated 80% primary tumor reduction and improvement of leptomeningeal disease. This treatment gave him a survival 1.5 years old to receive further conventional radiosurgery as follows: spire 24 Gy, overdose 27 Gy to tumor bed and cranial for a total dose 51 Gy. The patient is now 19 months from the end of treatment with stable disease. He is clinically well, with good performance status (Lansky 100%) and a good quality of life. The relevance to present this case is to highlight a safe and effective treatment for a relapsed CPC since there is not a curative therapy for these children.

LINC-06. PREVALENCE AND OUTCOMES OF AUTOIMMUNE ENCEPHALITIS IN A TERTIARY HOSPITAL IN BAGUO CITY, PHILIPPINES

Jadie Sajiao; BGHMC, Baguio City, Philippines

INTRODUCTION: Autoimmune Encephalitis is a debilitating neurological disorder that develops as a rapidly progressive encephalopathy, occurring usually less than 6 weeks, caused by brain inflammation. There are an initial surgery aborted due to hemorrhage and a second near relapse. Therefore, the primary aim of this cross-sectional study that reviewed health records of patients managed with CNS tumors either diagnosed at or referred to Indus Hospital from January 2015 to December 2021 were included. RESULTS: A total of 235 patients were included with a median age of 10.0 years and male predominance (60.8%). The three most frequent CNS malignancies observed were glioma (105; 44.3%), medulloblastoma (63;26.6%), and ependymoma (34;14.3%). Of 235 patients, 45(19%) received palliative treatment upfront, 37(15.6%) were referred to other institutions for care, and 33 (13.9%) abandoned prior to treatment initiation. Of the 120 (51.0%) patients with started curative treatment, 74(61.6%) completed treatment, 22(18.3%) continued treatment, 19(15.8%) abandoned treatment, and 5(4.2%) died during treatment. Overall survival in patients on curative treatment at the time of analysis was close to 80%. CONCLUSION: This study describes the outlook of care for children with CNS tumors in a tertiary center in Pakistan. It is observed that high rate of patients with upfront palliation and abandonment lead to poor outcomes. Stigma cancer, financial toxicity, delayed referral and burden of neurosurgies in government sectors could be contributing to these outcomes. Further work must be done to clarify the barriers to quality care. Furthermore, a conscious effort to increase integrated care for these patients is of utmost importance.

LINC-08. NEURO-Oncology Tumor Board – One Year Experience of International Collaboration

Margaret Shatara1, Evan Cantor2, Ashley Meyer2, Andrea Ogle3, Kimberly Hofmann1, Tannaz Zeinali4, Michaela McGh1, Madiha Bhatti1, Andrew Cluster1, Ali Mian1, Sonika Dahiya1, Zayed M. Abdelaziz1, Shady Fadel1, Nahla Mobarak1, Musa AlHarbi1, Soad Aljaun1, Ahsar Aljaun1, Waleed Said2, Moutaasem El-ayadi3, Madeeha Arief3, Hana Alomari4, Imene Chalchoub10, Nisreen Khalifa11, Nora Denger12, Pablo Hernaiz Driever13, Nicolas Rojas Del Rio14, Bozena Dembowska-Baginska15, Marta Perek-Polinski16, Monyou Scoceo17, Hitel Dhaloria18, Sunitha Nagabushan18, Milena Oliveira19, Angela C. Hirbe20, Amy E. Armstrong21, David Limbrick22, David H. Gutmann22, Mohamed S. Abdelbaki1, The Division of Hematology and Oncology, St. Louis Children’s Hospital, Washington University School of Medicine, St. Louis, Missouri, USA. 2Division of Neuroradiology (A.M.), Department of Radiology, Mallinckrodt Institute of Radiology, St. Louis, Missouri, USA. 3Department of Pathology and Immunology, Washington University School of Medicine, St. Louis, Missouri, USA. 4Division of Neuro-Oncology, Department, Alexandria University School of Medicine, Alexandria, Egypt. 5Department of Paediatric Oncology Comprehensive Cancer Centre, King Fahad Medical, Riyadh, Saudi Arabia. 6Department of Hematology/ Pediatric Oncology, King Abdulaziz University Hospital, Jeddah, Saudi Arabia. 7Department of Hematology, Faculty of Medicine, Jagiellonian University Medical College, Krakow, Poland. 8Department of Pediatrics, King Fahd Medical Center, The Royal Hospital, Riyadh, Saudi Arabia. 9Department of Pediatrics, King Fahd Medical Center, The Royal Hospital, Riyadh, Saudi Arabia. 10Division of Medical Oncology, Farhat Hached University Hospital University of Sousse, Sousse, Tunisia. 11Pediatric Hematology and Oncology, National Bank of Kuwait Children’s Hospital, Kuwait City, Kuwait. 12Department of Pediatric Oncology and Hematology, Faculty of Medicine, Alexandria University School of Medicine, Berlin, Berlin, Germany. 13Charité-Universitätsmedizin Berlin, Berlin, Germany. 14Department of Hematology, Faculty of Medicine, Alexandria University School of Medicine, Germany. 15Pediatric Hematology, Oncology and Bone Marrow Transplant, Peri Children’s Hospital, Peri Children’s Hospital, WA, Australia. 16Kids Cancer Centre, Sydney Children’s Hospital and University of New South Wales, Randwick, NSW, Australia. 17Pediatric Oncology, Hospital de Clínicas de Porto Alegre and 10 Instrumento de Oncologia Pediatrica, Porto Alegre, Brazil. 18Division of Oncology, Department of Medicine, Siteman Cancer Center, Washington University, St. Louis, Missouri, USA. 19Department of Neurosurgical, Washington University School of Medicine, St. Louis, Missouri, USA. 20Department of Neurology, Washington University School of Medicine, St. Louis, Missouri, USA. 21Division of Hematology, Oncology, and Bone Marrow Transplant, Peri Children’s Hospital, Peri Children’s Hospital, WA, Australia. 22Department of Neurology, Washington University School of Medicine, St. Louis, Missouri, USA. 23Department of Pediatric Oncology, University of Sousse, Sousse, Tunisia. 24Division of Pediatric Oncology, University of Sousse, Sousse, Tunisia.

BACKGROUND: The management of childhood central nervous system (CNS) tumors is complex and faces numerous barriers. The low- and middle-income countries (LMICs) is lower than high-income countries due to under diagnosis, treatment abandonment, lack of appropriate radiological, histopathological, neurosurgical, radiotherapeutic, and pediatric oncologic services. The present study aimed to evaluate the treatment challenges observed in a tertiary center in Pakistan. PATIENTS AND METHODS: We evaluated the demographics of patients younger than 18 years of age with CNS tumors either diagnosed at or referred to Indus Hospital from January 2015 to December 2021 were included. RESULTS: A total of 235 patients were included with a median age of 10.0 years and male predominance (60.8%). The three most frequent CNS malignancies observed were glioma (105; 44.3%), medulloblastoma (63;26.6%), and ependymoma (34;14.3%). Of 235 patients, 45(19%) received palliative treatment upfront, 37(15.6%) were referred to other institutions for care, and 33 (13.9%) abandoned prior to treatment initiation. Of the 120 (51.0%) patients with started curative treatment, 74(61.6%) completed treatment, 22(18.3%) continued treatment, 19(15.8%) abandoned treatment, and 5(4.2%) died during treatment. Overall survival in patients on curative treatment at the time of analysis was close to 80%. CONCLUSION: This study describes the outlook of care for children with CNS tumors in a tertiary center in Pakistan. It is observed that high rate of patients with upfront palliation and abandonment lead to poor outcomes. Stigma cancer, financial toxicity, delayed referral and burden of neurosurgeries in government sectors could be contributing to these outcomes. Further work must be done to clarify the barriers to quality care. Furthermore, a conscious effort to increase integrated care for these patients is of utmost importance.
oncology tumor board via zoom videoconferencing was established in January 2021. This effort is a collaboration between Washington University School of Medicine, in St. Louis, Missouri, USA and nine international sites. Given the shortage of established lines of this international program, it has since grown to include 20 institutions and cancer centers from 12 countries in the Middle East, Europe, Australia and South America. RESULTS: As of January 2022, we have held 11 tumor boards, 35 cases were reviewed, and have had 320 experts attend from several specialties – neuro-oncology, neuroradiology and neuropathology. A multidisciplinary team of physicians reviewed each case and recommendations were given accordingly. We also started a quarterly neurofibromatosis (NF) meeting focused to leverage the expertise of dedicated specialists in the NF center. Two NF-focused meetings took place establishing the program, and total of five cases were discussed. CONCLUSION: Virtual videoconferencing promotes a multi-disciplinary approach for the management of pediatric CNS tumors, and it allows access for medical expertise. We anticipate the current initiative will also provide a platform for future international research collaborations and deliver the optimal medical care for neuro-oncology patients globally. Multiple potential collaborative projects are currently underway.

**LINC-09. COEXISTING GANGLIONEUROMA AND ADRENAL GANGLIONEUROMA**

Anil Dharshini,1 Saad Atashpanjeh,2 Aileen Azar-Yam,3 Fanideh Nejati,1 Zohreh Shahbandi,1 Paulo, São Paulo, Brazil.

**INTRODUCTION:** Intracranial adrenal neoplasia is a rare entity and the concurrent presence of both adrenal and anterior fossa ganglioneuromas has been rarely reported in the literature, with limited data in the current study. This study aims to report the ability to adequately treat Brazilian patients with adrenal ganglioneuroma through a consortium protocol, reporting their treatment, response and survival. Methods: Since 2013, 58 patients with histologic and/or tumor marker (TM) diagnosis of germinoma with/without HCG levels 2500mIU/ml (n=43), five of them between 100-200mIU/ml, received carboplatin/cyclophosphamide (4 cycles), 15 received etoposide/cyclophosphamide (6 cycles), all followed by 18Gy ventricular field irradiation and primary site(s) boost. Autologous hematopoietic cell transplant (AuHCT) was undertaken for NGGCT slow responders. Results: Median age 1.3 years, 1.2 males. Diagnosis was made by TM (n=19), surgery (n=25) and both (n=12). Two bicofal cases with negative TM and inconclusive biopsy were treated as germinoma. Primary tumor location was pineal (n=30), suprasellar (n=16), bifocal (n=11) and basal ganglia/thalamus (n=9). Eighteen had ventricular/spinal spread. Second-line surgery occurred in seven patients. For the germinoma group, 36 achieved complete responses (CR) after chemotherapy, seven showed residual teratoma/scar. For the NGGCT after 4-6 cycles, six patients showed CR, two failure progression and seven partial responses (five with negative TM). Two with positive TM underwent AuHCT. Radiotherapy was utilized as described, except in three patients. Four NGGCT patients died (two disease progression, two other causes with no disease). Toxicity was mostly grade 3/4 neutropenia/thrombocytopenia during chemotherapy. At a median follow-up of 40 months, event-free and overall survival was 100% for germinoma and 64.5% NGGCT. Conclusion: The proposed treatment was feasible to be performed in a developing country, with suitable survival even with VFI dose reduction to 18Gy.

**LINC-11. INTRATHecal METHOTREXATE IN A YOUNG CHILD WITH MEDULLOBLASTOMA WITH EXTENSIVE NODULARITY, AN ALTERNATIVE TO INTRAVENTRICULAR ROUTE IN LOW AND MIDDLE INCOME COUNTRIES**

Carlos Leal-Cayazos,1 Jose Arenas-Ruiz,2 Oscar Vidal-Gutierrez,2 Hospital Universitario "Dr. Jose E. Gonzalez", Monterrey, NL, Mexico.

**BACKGROUND:** In places where determination of molecular subgrouping of Medulloblastoma is not available, histology remains standard for risk stratification and treatment. Young children with medulloblastoma treated with a craniospinal irradiation show a negative impact in neurocognitive functions, thus avoiding radiation in this specific population is encouraged. High dose chemotherapy and stem cell rescue have been internationally used as a strategy to spare radiation in infants and young children with CNS tumors. German Federation Protocol (SKK) reported 39% good and 10% excellent neurocognitive outcome in patients with Desmoplastic Medulloblastoma treated with intra-ventricular (i.vtr) methotrexate (MTX). SKK protocol includes 36 i.vtr. administrations of MTX through a subcutaneous reservoir. Complications related to the use of this kind of reservoir could be due to the lack of experienced staff. METHODS: We report a localized Medulloblastoma with extensive nodularity (MBEN) treated as per SKK using intrathecal route instead of i.vtr. MTX. A 2.5 year old boy was diagnosed with MBEN, surgery was complete and no shunt was required. Spinal MRI and CSF cytology were negative. Patient received 3 cycles of SKK protocol and 2 cycles of modified SKK. During the first 3 cycles he received one dose of intrathecal MTX 8mg on weeks 1, 3, 5 and 7 (12 doses in all). Patient remains free of disease 2 years after chemotherapy completion without signs of leukopenia or hemorrhagic complications on the adrenals.

**DISCUSSION:** Intrathecal administration of MTX is commonly used for the treatment of Acute Lymphoblastic Leukemia, the most common childhood cancer. Staff in Low and Middle Income Countries (LMIC) may be better trained in brain and adrenal care than using a ventriculac access device. This strategy could be considered when using SKK protocol in selected young children with Demoplasic Medulloblastoma and MBEN in LMIC where centers with enough experience with ventricular access device placement and handling are scarce.