and direct early intervention with behavioral training and/or anxiolytics to minimize the need for sedation.

NURS-11. MARIJUANA, HEMP, AND THE CHILD WITH CANCER: PATIENT, PARENT, AND CLINICIAN EDUCATION

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Many pediatric oncology patients report medical marijuana (MMJ) and hemp-based CBD use. Eleven states and Washington, DC have legalized marijuana for recreational use for adults greater than 21. Medical marijuana is legalized in 33 states. Additionally, due to the bipartisan Farm Bill passed in December of 2018, hemp is federally legal. Marijuana has medical legalization in 23 countries worldwide. Clinical trials in adults have examined MMJ for cancer-related symptoms. New research is emerging on MMJ in anticancer therapy, MMJ receptors on tumor cells, and the potential role for MMJ as an immunomodulator. Few pediatric oncology studies have evaluated MMJ. We describe the initial findings of a prospective observational study of MMJ on the quality of life (QOL) in pediatric brain tumor patients. Specific aims included (1) MMJ's association with symptoms (nausea, anxiety, pain, fatigue, and cognitive problems) and (2) MMJ's impact on family dynamics. The legality of hemp plus the increasing use of MMJ raises concerns with pharmacological interactions with CBD and the medications routinely administered to children with cancer. Nurses are the frontline for discussions with patients about MMJ and must be aware of the emerging field of MMJ in pediatric cancer. Additionally, nurses can influence patient care protocols and processes for alternative therapy administration enabling an open dialogue between providers, parents, and patients regarding treatments, symptoms, adverse effects, and drug interactions. Education about how to have conversations about important facets to cover and consider is crucial to patient safety and increased quality of life.

NURS-12. MAKING SURVIVORS HEALTHIER: A MULTIDISCIPLINARY APPROACH TO HYPOTHALAMIC OBESITY

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BACKGROUND: Pediatric survivors of hypothalamic/suprasellar tumors have significant morbidities that greatly impact their quality of life. Management of hypothalamic obesity has traditionally fallen between multiple subspecialties without a timely and comprehensive approach. METHODS: A multidisciplinary group of key players from neuro-oncology, endocrinology, nutrition, neurosurgery, and bariatric surgery were identified. Through this collaboration, a clinical algorithm for early identification of and intervention for hypothalamic obesity was developed. The goal of the quality improvement process is to increase the number of encounters with a registered dietitian (RD) with earlier and more consistent referrals to a specialized, multidisciplinary weight management program [Lifestyle Medicine; (LM)] for counseling and pharmacologic interventions. Indications for referral to LM were BMI >95th percentile, crossing >2 BMI percentiles on growth curve and/or hyperphagia symptoms. A retrospective review of pediatric patients who have suprasellar/ hypothalamic tumors was also conducted. Data collected included demographics, tumor type, BMI, RD visit, and LM clinic referral/visit. RESULTS: Fifty patients were identified for analysis six months following clinical algorithm institution. Thirty-three (66%) patients had craniopharyngioma, 15 (30%) had low-grade gliomas, and two (4%) had germ cell tumors. Thirty-three (66%) patients were noted to be obese (defined as BMI >95th percentile) at review. The median BMI of the entire cohort was 93rd (range, 1st-137th) percentile. Thirty-four (68%) patients had been seen by an RD. Twenty-seven (82%) of the obese patients had been referred to LM. CONCLUSIONS: The development and implementation of the process for hypothalamic obesity prevention and intervention will be discussed.

OTHER (NOT FITTING ANY OTHER CATEGORY)

OTHR-02. MULTIMODALITY TREATMENT FOR CHILDREN WITH CENTRAL NERVOUS SYSTEM (CNS) TUMOR IN OUR INSTITUTE

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BACKGROUND: The brain tumor has a highest mortality rate among childhood malignant tumors. Development of peripheral blood stem cell transplant combined chemotherapy and radiation therapy improved the survival rate of patients with pediatric brain tumor drastically late years. Because of its complicated treatment plan, neurosurgeons cannot readily manage these aggressive therapies which require minute whole body control including prevention of lethal infection due to bone marrow suppression. Even if such treatment is effective and patient survives, the aftereffects may reduce patient's QOL. PURPOSE: We report outcomes of the patients with CNS tumor after multimodality treatment. In addition, we introduce the activity contents by the in-hospital children brain tumor multi-disciplinary medical treatment team organized in March 2016. METHODS: We retrospectively reviewed 29 patients (under 15 years old) diagnosed as CNS tumors with total of 43 tumor surgeries between January 2001 and December 2019. RESULTS: The histopathological diagnoses were 7 germ cell tumor, 7 astrocytic tumor, 4 ependymal tumor, 4 medulloblastoma, 2 craniopharyngioma, 2 AT/RT and 3 others. The mean age at first surgery was 7.4 y.o. (range: 0.3–14.8). Both chemotherapy and radiation therapy were performed in 22 cases out of 29. There were 15 survivors (11 ambulant, 3 W/C, 1 bedridden), 12 deaths, 2 lost follow-ups. Mean follow-up period was 66 months (range: 1–206). CONCLUSION: To improve outcomes, we hold on a regular basis of team meeting, discuss treatment plan, and share information. Recently, we also care issues of the patients, such as fertility and palliative medicine.

OTHR-07. CHRONIC ENCEPHALOPATHY DUE TO METHOTREXATE NEUROTOXICITY AS A RARE COMPLICATION IN A CHILD WITH LEUKEMIA: A CASE REPORT

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Methotrexate (MTX) is an essential component of chemotherapy for childhood acute lymphoblastic leukemia (ALL). Both intravenous (IV) and most commonly intrathecal (IT) routes of MTX have been complicated in acute, subacute, and chronic neurotoxicity syndromes. A 9-year-old girl had been diagnosed with standard risk ALL since 2011 with first chemotherapy protocol was Indonesian protocol standard risk ALL 2006 and remission in 2012. On July 2015, patient was diagnosed as relapse ALL and underwent Indonesian protocol high risk ALL 2013. The last chemotherapy protocol of patient was Indonesian protocol high risk ALL 2013 maintenance phase 89th weeks with total dosage of MTX was 336 mg (IT), 6000 mg/m2 (IV), and 2500 mg/m^2 orally. Her presenting symptom was progressive decrease of consciousness since 3 months before hospital admission. First brain computed tomography (CT-Scan) and magnetic resonance imaging (MRI) revealed brain atrophy. One month later she had abnormality in behavior and functional ability with second brain CT-Scan revealed brain atrophy and lacunar infarct in left pons. This case can be in accordance with chronic encephalopathy due to MTX. It is important to recognize early complications taking the form of subclinical or symptomatic CNS damage (e.g. headache, dizziness, tremor, ataxia, aphasia, dysarthria, emotional instabilities, seizures, hemiparesis, encephalopathy) that can occur in the course of chemotherapy especially MTX. Determination of the cause of encephalopathy is associated with considerable difficulty despite the use of various diagnostic methods and also treatment of MTX neurotoxicity is mainly supportive and recovery is usually complete. Keywords: imaging, methotrexate, neurotoxicity, leukemia

OTHR-09. CENTRAL DIABETES INSIPIDUS: A RARE UNREPORTED SIDE EFFECT OF TEMOZOLOMIDE IN PEDIATRICS

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Temozolomide is a chemotherapeutic agent commonly used in the treatment of central nervous system tumors. While there are case reports of temozolomide associated central diabetes insipidus (CDI) in adults, this has not been reported in children. We describe the first case of temozolomide associated CDI in a pediatric patient. The patient was a previously healthy 12yr old male diagnosed with anaplastic astroblastoma. He underwent gross total resection of the lesion and was subsequently treated with focal radiation therapy and concurrent temozolomide. On day 21 of therapy he developed thrombocytopenia, severe polyuria and polydipsia. Temozolomide was held and he underwent a preliminary evaluation for CDI. Initial laboratory findings were concerning for CDI, and he was admitted for further work-up and to assess the need for desmopressin. Additional laboratory tests demonstrated normal anterior pituitary function and his serum sodium normalized