

that she would be well-adapted to a familiar job in a small community. In fact, she was doing well on the job 10 months after her discharge.

Key words: cognitive function | glioma | radiation therapy

NQPC-3

A SHORT-TIME INTENSIVE REHABILITATION FOR BRAIN TUMOR PATIENTS WITH KARNOFSKY PERFORMANCE STATUS OF 60-30
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OBJECTIVE: Brain tumor patients with KPS of 60 to 30 after the initial treatment are not able to spend independent life at home. The goal of this study is to return these patients to their home with minimal family support by delivering intensive rehabilitation to them. Seventy-five brain patients were evaluated every 10 days from the beginning to the end of rehabilitation treatment, according to clinical scales of Functional Independence Measure (FIM) of 1–7 points depending on the degree of independence. The rehabilitation effect was judged by the degree of improvement of 11 out of 13 motor FIM items, excluding stair climbing and bathing movements. When more than half number of the 11 motor FIM items requiring physical assistance (4 points or less) improved up to non-assistance (5 points or more), it was judged as a significant effect. In addition, when all 11 items present with 6 points (independence possible) or more and all 5 of FIM recognition items are 5 points or more (understand the domestic rules), it was judged that the patients acquired independent living ability. **RESULTS:** 1. Of the 75 patients, 54 (72%) showed a significant effect, and 38 of them (50.7% of the total) acquired independence at home. The acquisition-rate of independent living ability by tumor was 44.7% for 38 malignant gliomas, 53.8% for 13 metastatic tumors, 50% for 14 meningiomas, and 71.4% for 7 vascular tumors, and there was no significant difference between them. 2. The median time to reach the maximum rehabilitation effect was 35 days. **CONCLUSION:** Intensive rehabilitation for brain tumor patients with KPS of 60 to 30 is effective and should be incorporated into the palliative treatments in the brain tumor treatment guidelines.

Key words: brain tumor | Karnofsky Performance Status | rehabilitation

NQPC-5

DOES HIGH-DOSE METHOTREXATE-BASED CHEMOTHERAPY FOR RELAPSED PRIMARY CNS LYMPHOMA INCREASE A RISK OF LEUKOENCEPHALOPATHY WITH PRIOR WHOLE BRAIN RADIOTHERAPY?

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Backgrounds: Standard care for primary central nervous system lymphoma (PCNSL) comprises high-dose (HD) methotrexate (MTX)-based chemotherapy with or without consolidation whole brain radiotherapy (WBRT). HD-MTX administration following WBRT has been suggested to increase a risk of leukoencephalopathy. However, given that there are no other agents with efficacy similar to or better than MTX, patients with relapsed PCNSL may often be treated with regimens containing HD-MTX if the initial MTX treatment achieved a long-term complete remission. Here, we retrospectively analyzed prevalence and an extent of white matter damages in association with prior WBRT in patients with relapsed PCNSL treated with HD-MTX based therapy. **Patients & methods:** Among 79 patients with relapsed/refractory PCNSL in a total of 162 patients with newly-diagnosed PCNSL treated in our institution from April, 2000 to February, 2021, 35 patients were identified with evaluable KPS, MMSE, and Fazekas scale data at both baseline and follow-up periods. Of the 35 patients, 22 were treated with chemotherapy at a relapse (10 with prior WBRT, while 12 without WBRT), and were included in this preliminary study. **Results:** In the WBRT group (male/female: 5/5), median age was 65 years (range, 45–73), initial median KPS was 70 (40–90), and median WBRT dose was 27 Gy (23.4–40). Median progression-free survival (mPFS) was 11.8 months, and median overall survival (mOS) was not reached. In the non-WBRT group (M/F 8/4), median age 75 (62–84), initial mKPS 80 (50–90), mPFS 16.2 m, and mOS not reached. Initial KPS and MMSE score tended to be worse in WBRT group, presumably due to enrichment of patients with poorer performance status and more comorbidities. A decline in the Fazekas score was not associated with MMSE deterioration. **Conclusions:** The preliminary analysis was not informative enough, and further extensive imaging analysis will be exploited.

Key words: PCNSL | irradiation | leukoencephalopathy

NQPC-7

REHABILITATION PROGRAM TOWARD REINSTATEMENT SUPPORT BASED ON NETWORK CONSTRUCTION AMONG RELATED DEPARTMENTS FOR THE PATIENTS AFTER TREATMENT OF BRAIN DISEASE INCLUDING BRAIN TUMOR
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Introduction: We have conducted a rehabilitation program to support a return to work for patients with brain disease since 2019. The program focuses on independence in the home environment; physical ability for desk work, commuting and conversation; and concentration and executive ability in the office. The “Promotion of Health and Employment Support” document of the Ministry of Health, Labour and Welfare has been used to update the program since May 2021. Here, we report the status of this program. **Methods:** Patients desiring employment reinstatement attended the program. A doctor first gave an overview. Social workers then used the QLQ-C30/BN-20 questionnaire to assess mental and physical health, a therapist evaluated physical and higher cognitive function, and nurses advised on work-life balance and mental state. This information was used to develop suitable rehabilitation for each patient. The employment situation was surveyed after discharge. **Results:** The program included 77 patients (55 men, 22 women, mean age 54) from January 2019 to July 2021, after treatment for stroke (n=55), brain tumor (n=14), and traumatic brain injury or other conditions (n=8). FIM (94.2) and MMSE (26.3) at admission indicated that almost all patients were independent in ADL. A return to work was achieved by 25 (83%) of the 30 patients that could be investigated, including all 4 with brain tumors. The period until reinstatement was <1 month in 16 cases, but >1 month in 3 with brain tumors. The program was found useful by 26 patients (86%). Employment reinstatement was not achieved due to company reasons and family circumstances. Only 4 patients were interviewed by an industrial physician. **Conclusion:** The physical and cognitive functions of patients wishing for employment reinstatement were relatively well maintained. Cooperation with the company, information sharing with an industrial physician, and adjustment to the home environment were also important for reinstatement.

Key words: Reinstatement support | Brain disease | Network construction between medical and company

NQPC-10

(RARE) CANCER PATIENTS' UNMET NEEDS (PATIENT-FOCUSED HEALTHCARE NEEDS) SURVEY
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Background: Rare Cancers Japan (RCJ) consists of members of 20 rare cancer patient groups and individual rare cancer patients, including the Japan Brain Tumor Alliance (JBTA), the Pediatric Brain Tumor Network, and the DIPG Symposium Organizing Committee, and aims to solve the challenges of rare cancers. RCJ, together with the National Cancer Center Japan and the Japan Federation of Cancer Patient Groups is currently conducting a survey to clarify unmet needs of patients, as a follow-up survey to surveys conducted in 2018. Since then, a major paradigm shift happened in Japan, with the advent of genomic medicine and development of new treatments. This study plans to identify the latest unmet needs of cancer patients and to clarify the differences between cancer types to provide data for the improvement of healthcare systems. **Purpose:** Focusing on unmet needs of cancer patients, we conduct an online questionnaire survey of a total of 1,600 cancer patients (including brain tumor patients) regarding the following endpoints (1) detection and diagnosis, (2) treatment, (3) genomic medicine (access to genetic mutation testing), (4) clinical trials, (5) necessary information, medical care and support systems and (6) quality of life. The collected information will be analyzed to clarify the needs of patients and the nature of patient-centered healthcare. **Method:** The survey will be administered online, including a mix of open-ended and multiple-choice questions. The total number of questions, including respondent demographics, is 38, and the time required to answer them is expected to be between 15 and 20 minutes. Data analysis will take into account cancer type of cancer, gender, age group and region of residence of the respondent. **Expected results:** By February 2022, the results of the survey are expected to be available, as basis of discussion to improve brain tumor treatment and follow up, from a multidisciplinary perspective.

Key words: rare cancer | unmet needs | survey