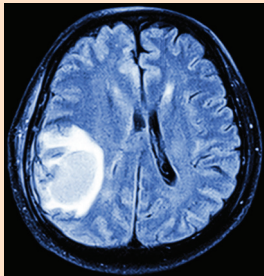


# Quality of Life, Psychological Burden, and Sleep Quality in Patients With Brain Metastasis Undergoing Whole Brain Radiation Therapy

Fatma Teke, MD, Pakize Gamze Erten Bucaktepe, MD, Erkan Kıbrıslı, MD, Melike Demir, MD, Aslıhan Okan İbiloğlu, MD, and Ali İnal, MD



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**Background:** Patients with brain metastasis (BM) usually suffer from poor quality of life (QOL), anxiety, depression, and sleep disorders in their reduced lifespan.

**Objectives:** The aim of this study was to evaluate QOL, anxiety, depression, and sleep characteristics in patients with BM at the beginning and end of whole brain radiation therapy (WBRT) and three months after treatment.

**Methods:** Thirty-three patients undergoing WBRT for BM were featured in this study. The authors used the Karnofsky Performance Status (KPS) scale to measure performance status, the Hospital Anxiety and Depression Scale (HADS) to evaluate anxiety and depression, the SF-36® to evaluate health-related QOL, and the Pittsburgh Sleep Quality Index to evaluate sleep disorders at the start of WBRT, the end of WBRT, and three months after WBRT.

**Findings:** Statistically significant improvements were noted in KPS scores from baseline evaluation to the end of WBRT and to three months after WBRT. No significant differences were observed in SF-36 and HADS scores between the start and the end of WBRT. Anxiety scores were negatively correlated with survival at the end of WBRT. Overall survival was better in those who reported better sleep. WBRT improves KPS scores and does not worsen sleep quality or mood, even in patients with poor performance status. When changes in mood and sleep quality are observed, survival and QOL may improve in patients with BM; consequently, nurses should be responsive to these changes.

Fatma Teke, MD, is an assistant professor in the Department of Radiation Oncology, Pakize Gamze Erten Bucaktepe, MD, and Erkan Kıbrıslı, MD, are both assistant professors in the Department of Family Medicine, Melike Demir, MD, and Aslıhan Okan İbiloğlu, MD, are both assistant professors in the Department of Psychiatry, and Ali İnal, MD, is an assistant professor in the Department of Medical Oncology, all at Dicle University Medical School in Diyarbakır, Turkey. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work. The content of this article has been reviewed by independent peer reviewers to ensure that it is balanced, objective, and free from commercial bias. No financial relationships relevant to the content of this article have been disclosed by the authors, planners, independent peer reviewers, or editorial staff. Mention of specific products and opinions related to those products do not indicate or imply endorsement by the *Clinical Journal of Oncology Nursing* or the Oncology Nursing Society. Teke can be reached at doktorfatmateke@gmail.com, with copy to editor at CJONEditor@ons.org. (Submitted October 2015. Revision submitted December 2015. Accepted for publication December 18, 2015.)

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**B**rain metastasis (BM) is a cause of significant morbidity in patients with underlying malignancies (Gavrilovic & Posner, 2005). The median survival time is very short and measured in months (Gaspar et al., 1997). The cornerstones of treatment for BM are whole brain radiation therapy (WBRT) and steroids (Saria et al., 2015). WBRT has been shown to extend life and improve the quality of life (QOL) in patients with symptomatic BM (Wong, Hird, Kirou-Mauro, Napolskikh, & Chow, 2008).

Many patients with cancer experience poor QOL, distress, anxiety, depression, and sleep disturbances. Because of the limited survival time in patients with BM, considering their QOL, mood, and sleep quality is important. To date, almost no prospective studies have evaluated QOL, sleep, and mood together in patients with BM receiving WBRT. In this study, the authors aimed to evaluate QOL, anxiety, depression, and sleep characteristics at the beginning and end of WBRT and again three months after treatment in patients with BM.