### **Original** Article

## Sleep Disturbances in Patients With Advanced Cancer in Different Palliative Care Settings

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#### Abstract

Context. Information regarding sleep disturbances in the population with advanced cancer is meager.

**Objectives.** To assess the prevalence of sleep disturbances and possible correlations with associated factors in a large number of patients with advanced cancer admitted to different palliative care settings.

**Methods.** This was an observational study performed in different settings of palliative care. A consecutive sample of patients with advanced cancer was prospectively assessed for a period of six months. Epidemiological and clinical data, treatments received in the last month, Karnofsky status, Edmonton Symptom Assessment System scores, and concomitant medical treatment were recorded. Patients were administered the Athens Insomnia Scale and the Hospital Anxiety and Depression Scale (HADS).

**Results.** A total of 820 patients were surveyed. Mean age was 69.7 years (SD 12.7), and 429 patients were males. Consistent sleep disturbances (moderate to maximum) were found in 60.8% of patients. Aged patients were less likely to have sleep disturbances, whereas a poor Karnofsky level was significantly associated with sleep problems. Breast, gastrointestinal, head and neck, lung, and prostate cancers were associated with sleep problems. Patients who had a secondary school or undergraduate education had less sleep disturbances. Hormone therapy and use of opioids and corticosteroids were positively associated with sleep disturbances, and there was a positive correlation of HADS-Anxiety and HADS-Depression scores with sleep disturbances.

**Conclusion.** More than 60% of palliative care patients have relevant sleep disturbances. Several factors associated with sleep disorders have been identified and should prompt physicians to make a careful examination and subsequent treatment of these disturbances. J Pain Symptom Manage 2015;50:786–792. © 2015 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.

#### Key Words

Sleep disturbances, insomnia, palliative care, advanced cancer

#### Introduction

Sleep disorders have been reported to be more frequent in cancer patients than in the general population. Prevalence estimates of sleep disturbances in cancer patients vary widely, ranging from as low as 24% to as high as 95%.<sup>1–3</sup> Disturbances persist years after the end of treatment,<sup>2</sup> suggesting that sleep disturbances develop a chronic course in a substantial proportion of cancer patients.

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Sleep disturbances may involve difficulties in falling asleep, trouble staying asleep, early morning awakening, or a complaint of nonrestorative sleep with a poor corresponding sleep efficiency.<sup>3</sup> The methodologies that have been used to study sleep in this area have many inconsistencies and potential inadequacies. Insomnia is often perceived only as a symptom secondary to depressive or anxiety disorders with the erroneous assumption that it will resolve with adequate treatment of the underlying problem. Sleep disorders may generate a further burden of distress to patients and families, and symptoms such as depression, anxiety, pain, and fatigue tend to be exacerbated. Indeed, well-being and quality of life are dependent on the quality and quantity of sleep in both healthy and ill patients.<sup>3,4</sup> Sleep quality (SQ) was found to be interfering with the quality of life in 50%-75% of patients.5,6

Unlike other correlates of cancer, cancer-related sleep disorders have received little attention. Although insomnia is a common problem in the management of patients with cancer, sleep is inadequately assessed by primary care physicians.<sup>4</sup> Insomnia was found to be prevalent and under-recognized among cancer patients receiving chemotherapy.<sup>7</sup> Information regarding sleep disturbances in the population with advanced cancer is meager.

The Home Care-Italy group was established with the intent of disseminating and implementing the information gathered on patients with cancer followed at home and has since extended its activities to other palliative care settings for multicenter studies. The aim of this study was to assess the prevalence of sleep disturbances and possible correlations with associated factors in a large number of patients with advanced cancer admitted to different palliative care settings.

#### Methods

A consecutive sample of patients with advanced cancer admitted to different palliative care settings (oncology, home care, palliative care unit, or hospice) for a period of six months was prospectively assessed for this study. Informed consent was obtained. The study conforms to the principles outlined by the Declaration of Helsinki.

Inclusion criteria were a diagnosis of cancer, informed consent, and ability to provide the information requested. Exclusion criteria included cognitive problems at the time of the interview. Comatose patients, severely ill patients, or those with an immediate poor prognosis also were excluded to avoid unnecessary psychological burden.

Epidemiological and clinical data, treatments received in the last month, Karnofsky Performance Status score, education level, environment, habits, and Edmonton Symptom Assessment System (ESAS) score were recorded. Concomitant medical treatment also was recorded.

At admission to one of the palliative care services, patients were administered the Athens Insomnia Scale (AIS)<sup>8</sup> and the Hospital Anxiety and Depression Scale (HADS).<sup>9</sup> The AIS consists of eight items. The first five items assess difficulty with sleep induction, awakening during the night, early morning awakening, total sleep time, and sleep quality (SQ). The last three items pertain to the next-day consequences of insomnia, such as problems with sense of well-being, overall SQ, and sleepiness during the day. Each item of the AIS is rated on a 0-3 scale, with 0 = n0 problem at all and 3 = very serious problem. The total of these eight items ranges from 0 to 24, with a score of 6 or more considered to represent sleep disturbance.<sup>10,11</sup> The HADS comprises 14 items with two subscales: anxiety (seven items) and depression (seven items). Each item of the HADS is rated 0-3; the total score ranges from 0 to 42, with a higher score indicating more severe depression and anxiety. For this study, a total score of  $\geq 11$  was set as the cutoff for psychological distress.<sup>12</sup>

#### Statistical Analysis

We provide descriptive statistics both for categorical and continuous variables. The statistical analysis aimed at detecting factors that affect SQ according to different dimensions of the SQ issues. A preliminary explorative distributional analysis of the variables involved was performed using boxplot graphs and Shapiro-Wilk tests. An analysis of SQ and clinical predictors, adjusted by age, gender, and Karnofsky score, was carried out, testing the magnitude of each component using Wald tests. The SQ multidimensional issue was examined with linear models, adjusted for common bias sources. A  $\chi^2$  overall significance test was performed for each model used at a Type I error = 5%. The statistical analysis was performed using STATA, version 13 (StataCorp LP, College Station, TX).

#### Results

A total of 820 patients met the inclusion criteria and were surveyed during the study period. The mean (SD) age was 69.7 (12.7) years, and 429 patients were males. The primary tumors were, in rank order, as follows: lung, 182 (22.4%); gastrointestinal, 257 (31.6%); breast, 87 (10.7%); hematological, 75 (9.24%); urological, 35 (5.5%); gynecological, 44 (5.42%); brain, 15 (1.85%); prostate, 31 (3.8%); head and neck, 20 (2.5%); melanoma, 16 (2%); kidney, 45 (5.5%); and other 40 (5%). Recent Download English Version:

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