Chapter 4

Evaluation of the Relationship Between Nutritional Status and Quality of Life Among Nursing Home Residents With Alzheimer’s Disease

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ABSTRACT

The purpose of this study was to determine nutritional status and its influence on their quality of life in Alzheimer’s disease (AD) patients with Mini Nutritional Assessment (MNA) and anthropometric measurements. This study was conducted with 57 Alzheimer type dementia patients between the ages of 52 and 89 who live in nursing homes in Ankara/Turkey. In this study, it was found that the 57.9% of the AD patients were at risk of malnutrition, and that 19.3% were malnourished. Malnutrition risk rises as the length of stay increases (p< .05). A significant correlation between body weight and quality of life as well as one between calf circumference and quality of life was detected (p< .05). In this study, nutrient intake among aged individuals with AD was found unbalanced; a statistically significant correlation between energy / nutrient intake and quality of life also was not detected.

INTRODUCTION

It is estimated that each year, 4.6 million new cases of dementia were predicted (one new case every 7 seconds), with numbers affected nearly doubling every 20 years to reach 81.1 million by 2040 (Ferri et al., 2005). As the most common cause of neurodegenerative dementia in the elderly population Alzheimer’s disease (AD) is a growing health issue and one of the leading causes of death among elderly
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people (Gillette-Guyonnet et al., 2000; Gurvit, 2004). Two-thirds of all dementia cases are caused by AD, which affects roughly 10% of the elderly. This prevalence increases with age, and reaches 45% among those over 85 years (Gurvit, 2004). In Turkey, the epidemiological data on Alzheimer’s disease is not sufficient; however, a relevant study indicates that the AD prevalence among those over 70 years is 11% (Gurvit et al., 2008).

In the present day, quality of life is one of the most important factors considered in the treatment of Alzheimer’s disease (Akyar & Akdemir, 2009). On the other hand, it is particularly difficult to define quality of life for these patients due to cognitive, physical, emotional and social factors that are specific to this disease. Moreover, it is not always possible to determine the life quality of Alzheimer’s patients using their own assessments since they may lack sufficient cognitive skills (Akyar & Akdemir, 2009; Akpinar & Kucukguclu, 2012). Assessing quality of life using subjective and objective indicators is associated with cognitive and behavioral disorders and, frequently, with nutritional disorders (Gillette-Guyonnet et al., 2000). Hyperphagia, hyporexia, sweet cravings, choice of food, refusal and severe feeding difficulties are prevalent eating patterns (Gillette-Guyonnet, Lauque & Ousset, 2005). Weight loss is also frequent, increasing the risk of complications, especially reduced muscle mass, a loss of autonomy, and an increased risk of falls, decubitus ulcers, and systemic infection. All of these increase the burden of the disease and reduce AD patients’ quality of life (Gillette-Guyonnet et al., 2000; Gillette-Guyonnet, Lauque & Ousset, 2005). Various mechanisms may be responsible for weight loss. It may be due to physical changes (e.g., impaired taste and smell functions, reduced appetite due to a decline in endogenous opioids, and increased satiety due to increased sensitivity to cholecystokinin), neuropsychiatric disorders associated with the disease (e.g., memory loss, disorientation, mood disorders, indifference, and impaired judgment), a change in autonomy and dietary habits, or changes in neurotransmitter concentrations (e.g., Neuropeptide Y and norepinephrine) (Knupfer & Spiege, 1986; Spaccavento et al., 2009). Weight loss worsens as the disease progresses and it is considered a predictor of patient mortality (Gillette-Guyonnet, Lauque & Ousset, 2005). Spaccavento et al. (2009) investigated the role of nutritional status on cognitive, functional and neuropsychiatric deficits in patients with AD. They found that patients at risk of malnutrition showed greater impairment, both in simple and instrumental activities of daily living and a more severe ideomotor praxis deficit than well-nourished patients. Neuropsychiatric symptoms (such as hallucinations, apathy, aberrant motor behavior and nocturnal disturbances) were more severe in patients at risk of malnutrition. Therefore, an intervention strategy that can prevent or slow the complications of this disease would have important public health benefits (Nourhashemi et al., 2000). It is critical that malnutrition is detected at an early stage since it is very difficult to reconfigure nutrition habits, especially for patients with dementia (Garry & Vellas, 1996).

Studies in the relevant literature indicate that 60% of AD patients in nursing homes are either malnourished or at risk of malnutrition (Elia, Jones & Russell, 2008). Thus, individuals at nursing homes should be examined regularly for malnutrition. Awareness about the influence of malnutrition on the quality of life should be raised. This requires that malnutrition risk and its clinical outcomes be researched with a variety of populations. Therefore, this study used the Mini Nutritional Assessment (MNA) and anthropometric measurements to determine AD patients’ nutritional status and its influence on their quality of life.