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DERLEME / REVIEW

Optimal Care in the Management of Eating Difficulties in Patients with Dementia

Demanslı Hastalarda Yeme Güçlüklerinin Yönetiminde Optimal Bakım

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ABSTRACT

Dementia is a progressive, degenerative condition characterized by a decline in cognitive function and is most common in older people. Common symptoms of dementia, such as memory loss, impaired thinking and problem solving, make it difficult to eat. This leads to malnutrition and dehydration. Various interventions are implemented to reduce eating difficulties in patients with dementia. To prevent eating difficulties, it is crucial to assess patients regularly and provide them with optimal nutritional care. This article aims to provide an overview of the eating problems commonly experienced by dementia patients. It also discusses person-centered interventions to identify the causes of malnutrition and provide optimal nutritional care for dementia patients. Direct nutritional support and indirect interventions can have a positive impact on compulsive eating behavior and increased or decreased food intake in patients with dementia. Therefore, recognition of eating difficulties in dementia patients and early intervention can prevent negative consequences such as malnutrition and dehydration.

Keywords: Dementia, Malnutrition, Nutritional Management, Optimal Care

ÖZ

Demans, bilişsel işlevlerde azalmayla karakterize, ilerleyici, dejeneratif bir durumdur ve yaşlılarda sık görülür. Bellek kaybı, düşünme sürecinde ve sorun çözmede bozulma gibi demans semptomları yemek yemeyi güçleştirir. Bu durum malnütrisyon ve dehidratasyona yol açar. Demans hastalarında yeme güçlüklerini azaltmak için çeşitli girişimler uygulanmaktadır. Yeme güçlüklerini önlemek için hastaların düzenli olarak değerlendirilmesi ve onlara en uygun nutrisyonel bakımın sağlanması çok önemlidir. Bu makale demans hastalarının sıklıkla yaşadığı yeme güçlüklerine genel bir bakış sunmayı amaçlamaktadır. Ayrıca malnütrisyonun nedenlerini belirlemek ve demans hastalarına en uygun nutrisyonel bakımı sağlamak için kişi merkezli girişimleri de ele almaktadır. Doğrudan beslenme desteği ve dolaylı girişimler, demanslı hastalarda kompulsif yeme davranışı ve bozulan oral alım üzerinde olumlu etki yaratabilir. Bu nedenle demans hastalarında yeme güçlüklerinin fark edilmesi ve erken müdahale yoluyla malnütrisyon ve dehidratasyon gibi olumsuz sonuçların önlenmesi sağlanabilir.

Anahtar Kelimeler: Demans, Malnütrisyon, Beslenme Yönetimi, Optimal Bakım

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INTRODUCTION

Dementia is a progressive degenerative disease of the central nervous system that leads to an impairment of functions such as memory, language, perception, abstract thinking, judgement, problem solving and calculation. The World Health Organisation (WHO) reports that dementia is the seventh leading cause of death worldwide and that over 55 million people have been diagnosed with the disease (1). It is estimated that this number will rise to 139 million by 2050 (2). As the cognitive functions and behavioural abilities of dementia patients gradually and irreversibly deteriorate, their ability to cope independently with everyday life and their quality of life are impaired. As dementia progresses, biological, psychological and social factors cause patients to experience difficulties at mealtimes. Changes in cognitive status and altered sensorimotor function lead to mealtime difficulties for patients (3,4). Mealtime difficulties can lead to either insufficient or excessive eating and making it difficult to maintain a balanced diet. This also leads to an increasing reliance on caregivers for support with meals and hydration (5). Nutritional and hydration deficiencies that affect the structure and metabolism of the brain can have a negative impact on cognitive abilities and trigger a vicious cycle. This can lead to an acceleration of dementia along with age-related physiological changes and diseases. Eating and drinking habits can be altered by dementia, leading to unintentional weight loss, malnutrition and dehydration. These changes increase the likelihood of infections, pressure ulcers, falls, frailty and poor health outcomes, significantly impacting both quality of life and clinical prognosis (6,7). The prevalence of eating difficulties in patients with dementia varies between 41.3% and 61% (8). Eating difficulties are most common in the moderate to severe stages of dementia (9).

Malnutrition is one of the greatest threats to the health, well-being and independence of older adults, particularly those living in nursing homes. Studies show that the risk of malnutrition in dementia patients varies between 46.8 % and 80.6 % (10-12). As the risk of malnutrition increases, the quality of life of older people decreases and the risk of hospitalisation and death increases. Although the importance of improving the nutrition of older people with dementia is recognised, the interventions that can be made to achieve success in this regard are not fully understood and have not been routinely implemented. Every older person residing in a long-term care facility should be routinely screened for risk (13,14).

Mealtime interventions are considered to be interventions that aim to change and improve the routine, practise, experience or environment of mealtimes. Mealtime interventions are divided into five categories: modifications to meal service, improving mealtime, modification of the dining environment, staff training, and nutrition assistance. Systematic and meta-analysis studies have shown that the observational results of changes in food service, food improvement interventions, or changes in the dining environment are inconsistent but mostly positive in terms of caloric intake (13,15).

This article provides an overview of the eating problems that are common and lead to malnutrition in dementia patients. Person-centred interventions for optimal nutritional care of patients with dementia will be discussed.

Causes of Inadequate Food Intake

Eating problems in dementia patients may be a result of behavioural problems associated with dementia or they may be due to age-related

changes. In addition, problems related to the eating environment can also affect food intake. In dementia patients, problems such as loss of taste and smell, loss of appetite, chewing problems, difficulty swallowing, as well as behavioral problems such as forgetting to eat and problems at mealtimes can lead to malnutrition (16).

Problems Resulting from Pathophysiological Changes Related to Aging

Appetite problems are common in patients with dementia. This problem may be age-related, or it may develop as a result of atrophy of the brain in areas that affect eating behaviour in dementia. In addition, inactivity, pain, depression, recurrent infections, constipation and side effects of medication also cause loss of appetite. This situation leads to reduced food intake and weight loss (3,17,18).

The loss of taste and smell, which is a natural process of ageing, can occur in the early stages of dementia patients. Therefore, patients' food preferences may change and they may favour sweet foods. The age-related decline in the sense of taste and smell and the early feeling of satiety also influence food intake (19, 20).

One of the age-related nutritional problems is oral, dental and chewing problems. These problems can occur due to disabilities and concomitant diseases as well as advancing age (7). Chewing problems can occur due to tooth decay and dentures not fitting properly. They may experience fatigue and pain in the mouth due to chewing. People with dementia may keep food in their mouth because they have difficulty chewing and delay swallowing (21).

Problems Related to Dementia

In addition to the problems associated with old age, many problems associated with dementia also affect eating and drinking. Mealtime problems due to cognitive changes in dementia patients begin in the early stages and continue throughout the prognosis of the disease. Orientation and attention deficits that occur with dementia can cause problems with shopping, storing and preparing food, which can lead to malnutrition. As the disease progresses, the ability to concentrate on eating and drinking and to initiate and maintain meals decreases. Apraxia and agnosia affect the patient's independence. Their social relationships may be lost, so they may not want to eat or drink with others. With the onset of behavioural problems and the loss of the ability to use cutlery, the patient may completely forget about eating and drinking (7). In addition, they may no longer be able to distinguish objects on the table unless they are of contrasting colours. The patient may have difficulty distinguishing the plate from the table, the food from the plate and the liquid from the glass. This may result in the patient being unable to finish the food on their plate (22). Dementia patients may skip meals or overeat due to cognitive dysfunction (3, 5, 7). Patients may experience situations such as eating non-finger foods with their hands, being distracted while eating, and playing with food or non-food items (3). As dementia progresses, patients have problems with hand-mouth coordination and the ability to start eating, maintain attention, stay alert and use utensils (16).

Dysphagia can also occur in dementia patients due to motor, sensory and behavioural problems. Cortical and/or subcortical lesions that occur in these patients can impair the neural control of swallowing and cause dysphagia. The frequency of dysphagia increases depending on the type of dementia and with increasing severity of the dementia. In studies, the incidence of dysphagia in patients with dementia varies between 32-

93% depending on the type and severity (23, 24). One study found that the risk of dying from pneumonia is twice as high in patients with dysphagia as in patients without dementia (25).

Problems with Meal Environment and Time

The nature of the dining environment can trigger a person's emotional and physical response. While an environment in which person-centred care is applied, where personal or cultural needs are taken into account, can increase the patient's food intake, an unsupportive environment leads to reduced oral intake and nutritional deficiencies in dementia patients (8). Dementia patients, especially in long-term care facilities, come to meals in communal areas and cannot sit for long periods of time, and in this case, food intake may decrease (26). For patients with agitation, delusional thinking, aggressive behaviour and mood swings, environmental factors need to be well adjusted during mealtimes (5,7).

Nutrition Screening and Evaluation

Continuous monitoring of the nutritional status of people with dementia and early diagnosis of malnutrition are important for early intervention. Nutritional screenings should be performed regularly to detect problems at an early stage. These screenings should use instruments with proven validity and reliability such as the Malnutrition Universal Screening Tool (MUST) and the Mini Nutritional Assessment (MNA) (27,28). It is very important to determine not only the patient's malnutrition risk, but also their behavioural difficulties with food intake. For this purpose, the Edinburgh Feeding Evaluation in Dementia (EdFed) scale and the Eating Behaviour Scale (EBS) are used to assess eating difficulties in patients with dementia (29,30). Both scales were developed to measure eating difficulties in people with dementia. However, both instruments have some limitations when it comes to measuring behavioural difficulties. In addition to behavioural difficulties, topics such as swallowing difficulties, difficulties in using kitchen utensils, the placement of utensils and the extent of assistance needed should also be included in patient assessment (31). In nutritional screening and assessment, it is recommended to use tools that involve dementia patients and even their families in the decision-making process (32). It is important for healthcare workers to recognise changes in the dementia patient's behaviour at an early stage, help them to eat, determine the appropriate intervention and provide nutritional support. Knowing how to use these tools in the routine care setting is essential for encouraging patients who are experiencing difficulties. In addition, the patient's family or relatives who have noticed this situation may also have observed these changes, so their reports should also be taken into account (8).

Interventions to Ensure Optimal Nutritional Care

Some interventions are needed to address the eating difficulties of dementia patients and promote appropriate nutrition. Research suggests that successful interventions should prioritise cognitive impairment, nutritional status, staff training and environmental modification. It is emphasized that mealtime support should include various elements, such as meal planning, preparation, presentation, the dining experience, the environment and assistance with eating (8,33).

Assessment of dementia patients at mealtimes is important to identify difficulties experienced by caregivers and interventions to be taken. Interventions for eating problems may be related to time, service, mealtime environment, and assistance provided during mealtimes (16).

Equipment used to facilitate eating include items that resemble a home environment and are selected according to the patient's functional status and preferences, tools such as porcelain plates or lightweight utensils, divided plates, glasses with handles and lids, and aprons to protect clothing, etc. The opinion of the healthcare professionals and individuals accompanying the patient to mealtimes directly caring for the patient should be sought when considering the dining environment, e.g. the layout, design and choice of furniture that can enhance meal service and the dining experience. For example, height-adjustable tables should be available for people with dementia who use a wheelchair so that they can sit closer to the table (6).

In their study, Chen et al. (2016) applied a three-month nutritional intervention to patients, which included the arrangement of food and kitchen utensils in the environment, appropriate assistance at mealtimes, monitoring of eating difficulties and psychological support measures. It was found that food intake increased, eating problems decreased and nutritional parameters such as upper arm circumference, skinfold thickness, serum albumin and haemoglobin improved after the intervention (34).

In recent years, a person-centred approach has been recommended for the care of dementia patients in particular. This approach, which is based on observing the patient's reactions during interventions and carrying out activities according to the patient's preferences and wishes, is also recommended for eating problems. One of the main features of person-centred care is the involvement of family members in patient care and shared decision-making (6,16). To encourage food intake with a person-centred approach, patient's food preferences should be found out, favourite foods should be served and diet should be supported by offering a variety of foods.

Food can be flavoured with spices, lemon, garlic, tomato sauce, vinegar, etc. depending on the patient's preferences (taking into account concomitant illnesses). Naturally flavoured foods such as fruit, carrots, sweet potatoes, sweet sauces, pickles and puddings should be offered. Pay attention to the presentation of the food and the plate should be visually appealing. The patient's changing preferences should be respected. Depending on the patient's condition, food should be offered in pureed form if necessary. Optional drinks should be offered with meals. Regular nutritional assessments should be carried out to prevent malnutrition. The use of plates, forks, spoons etc. in contrasting colours on the table increases the patient's attention while eating and can increase oral intake as the patient can visually perceive the food. This should be trialled and the patient's reactions observed. This practise can also be achieved by placing food in different colours on the plates. For example, foods such as cauliflower, chicken and potatoes can be made interesting by colouring them with sauce, parsley, broccoli and carrots. The soup can be served with crusty bread and crunchy vegetables with noodles. If a person has difficulty with hand-mouth coordination and using cutlery, independence can be supported by using appropriate cutlery and plates and offering finger food. Offering finger foods can also increase food intake at mealtimes and snacks. Snacks with high nutritional value such as cheese cubes, crackers, creamy yoghurt, vegetable sticks and sauces, sliced fruit and puddings should be offered between meals. Fruit and vegetables should be served with high-calorie foods such as ice cream, pudding, jam or cream. Serving finger foods in snack boxes can be helpful for people who take longer to eat or are too distracted to sit down at the table. Changing the texture of food can help people who have difficulty swallowing and chewing

to continue to enjoy eating and drinking. It can be helpful to offer soft foods such as eggs, fish, mashed potatoes, porridge and cereals with milk. Individuals with suspected dysphagia should be referred to a speech and language therapist for advice on safe and appropriate food texture modification. Patients should be encouraged to carry out routine oral care and have regular dental check-ups (16,32,35). Changes in the texture of food can reduce people's energy and protein intake when the amount of food increases and the presentation is less appealing (36). Using moulds to shape foods and keeping purees separate can help make modified texture foods more appealing (26). If the patient has an appetite problem, meals should be offered in small portions that are high in energy and protein (35). One study found that giving snacks between meals to people at nutritional risk improved their nutritional state (37). Giving chilled drinks to increase fluid intake can stimulate the patient's appetite, but should not be offered close to meals as they can make the patient feel full. Foods with a high water content, such as melon, soup, cucumber and jelly, can be beneficial (16).

In studies in which patients were video-recorded and observed during mealtimes, it was found that the interaction between the caregiver and the patient is an important factor for oral intake (38,39). When a caregiver eats with dementia patients, in addition to good communication, this can increase food intake and encourage patients to eat independently by imitating the caregiver (16). For patients who are cared for at home, eating together with the family can improve nutrition and communication. Montessori-based activities such as setting the table, washing dirty dishes, setting plates, making sandwiches and washing and peeling vegetables can also help to prepare for eating and stimulate the senses. Spaced retrieval therapy at mealtimes, eating with people or alone, depending on the patient's preference, can improve nutritional status. Studies have shown that Montessori therapy and spaced retrieval therapy can reduce eating difficulties and increase frequency of eating (40,41).

A bright environment and a tidy table can encourage eating by making the food appear appetising. The use of plates, cups, forks, spoons and knives designed for patients that prevent spillage and are easy to hold can support patients' independence. Preventing distraction by turning off devices that may create noise, such as TV and radio, can increase food intake. Playing background music that the patient enjoys during mealtimes can reduce agitation and aggression and increase food intake. Cooking and serving meals in a place where the patient can smell the food can increase the patient's appetite. The most appropriate position for the patient should be determined and supported. If necessary, the patient should be assisted to eat. Sufficient time should be given to eat and the patient should not be pressurised to eat. The patient should be verbally encouraged to eat during mealtimes (16). For patients who need help, it is recommended to feed directly by hand or to help the patient eat by supporting his hand from below (42). It is also noted that exercises to improve manual dexterity can improve the ability of patients with dementia to eat independently (43).

CONCLUSION AND RECOMMENDATIONS

Assistance and indirect interventions during eating can have a positive effect on reducing eating difficulties and increasing oral intake in patients with dementia. It is therefore important to recognize eating difficulties in patients with dementia and to prevent negative consequences such as malnutrition and dehydration through

early intervention. To ensure adequate nutritional intake for dementia patients, care homes must have adequately trained staff, provide the necessary equipment and materials and offer a menu that suits the patient's preferences.

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Conflict of Interest

The authors declare that they have no conflict of interests regarding content of this article.

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