Case report: Nursing care plan of Alzheimer's disease patient with COVID-19

Ayşe TOSUN^a, Hale TOSUN^b

ABSTRACT

Objective: Elderly people with comorbidities are defined in the high-risk group for COVID-19 by the World Health Organization. Experiencing COVID-19 infection in elderly people with cognitive decline is a burden for both healthcare professionals and healthcare institutions. The use of the nursing process is extremely necessary and important in order to reduce this burden, provide the desired quality of care, treat the individual with a holistic approach and use time effectively. The aim of the study is to determine the basic nursing diagnoses, interventions and outcomes for the Alzheimer's disease patient with COVID-19 by using standard nursing terminology. Methods: This study is a case report of Alzheimer's disease patient with COVID-19. The data were evaluated in accordance with the Life Activities Model of Roper, Logan, and Tierney. The care plan is presented in accordance with the North American Nursing Diagnosis Association-International (NANDA-I) Taxonomy II Nursing Diagnosis and Nursing Interventions Classification (NIC). Results: Improvement was observed in the problems identified in the case as a result of the care plan created objectively in line with NANDA-I and NIC and appropriate nursing diagnoses and interventions. Conclusion: Patient follow-up and providing qualified nursing care are of great importance during the COVID-19 pandemic. NANDA-I and NIC are important guides in determining the comprehensive and objective care needs of patients with COVID-19, clinical decision making and practices.

Keywords: Alzheimer's disease, COVID-19, NANDA-I, NIC, nursing

Olgu sunumu: COVID-19 tanılı Alzheimer hastasında hemşirelik bakım planı

ÖZET

Amaç: Komorbiditeleri olan yaşlı insanlar, Dünya Sağlık Örgütü tarafından COVID-19 için yüksek risk grubunda tanımlanmaktadır. Bilişsel gerileme yaşayan yaşlı bireylerin COVID-19 enfeksiyonu geçirmesi hem sağlık çalışanları hem de sağlık kurumları için bir yüktür. Hemşirelik sürecinin kullanımı bu yükü azaltmak, istenilen bakım kalitesini sağlamak, bireyi bütüncül bir yaklaşımla ele almak ve zamanı etkin kullanmak için son derece gerekli ve önemlidir. Bu çalışmanın amacı, COVID-19'lu Alzheimer hastasına yönelik temel hemşirelik tanılarını, girişimlerini ve sonuçlarını standart hemşirelik terminolojisini kullanarak belirlemektir. Yöntem: Bu çalışma, COVID-19'lu Alzheimer hastasına ait bir olgu sunumudur. Vakaya ait veriler Roper, Logan ve Tierney'nin Yaşam Aktiviteleri Modeli doğrultusunda değerlendirilmiştir. Bakım planı Kuzey Amerika Hemşirelik Tanıları Birliği [North American Nursing Diagnosis Association-International (NANDA-I)] Taksonomi II Hemşirelik Tanıları ve Hemşirelik Girişimleri Sınıflaması [Nursing Interventions Classification (NIC)] doğrultusunda sunulmuştur. Bulgular: NANDA-I ve NIC doğrultusunda objektif olarak oluşturulan bakım planı ile uygun hemşirelik tanı ve girişimleri sonucunda vakada tespit edilen sorunlara yönelik iyileşme gözlendi. Sonuç: COVID-19 pandemisi sürecinde hasta takibi ve nitelikli hemşirelik bakımının verilmesi büyük önem taşımaktadır. NANDA-I ve NIC COVID-19'lu hastanın kapsamlı ve objektif bakım ihtiyaçlarının belirlenmesinde, klinik karar verme ve uygulamalarda önemli bir yol göstericidir.

Anahtar Kelimeler: Alzheimer hastalığı, COVID-19, NANDA-I, NIC, hemşirelik

Geliş Tarihi: 11.01.2024 Kabul Tarihi: 22.07.2024

Sorumlu Yazar/Correspondence: Hale Tosun e-posta: hale.tosun@balikesir.edu.tr

Attf/Citation: Tosun A, Tosun H. Case report: Nursing care plan of Alzheimer's disease patient with COVID-19. Sağlık ve Yaşam Bilimleri Dergisi 2024;6(2):94-101.

^aUniversity of Health Sciences, Hamidiye Faculty of Nursing, İstanbul, Türkiye, e-posta: <u>ayse.tosun@sbu.edu.tr</u> ORCID: 0000-0001-9018-9262

^bBalıkesir University Faculty of Health Sciences Department of Nursing Üniversitesi, Balıkesir, İstanbul, Türkiye, e-posta: hale.tosun@balikesir.edu.tr ORCID: 0000-0001-5362-6793

INTRODUCTION

The coronavirus disease 2019 (COVID-19) was first detected by the World Health Organization (WHO) in Wuhan, Hubei Province of China, and the first detection in Turkey was made on March 11, 2020. In a very short time, COVID-19 turned into a pandemic that negatively affected the economy as well as human health at the global level. By the end of November 2023, the COVID-19 pandemic has caused 6.978.175 deaths and 771.820.937 confirmed cases globally.

It has been reported by WHO that deaths are more common, especially in the elderly and individuals with chronic diseases, as well as mild or asymptomatic cases due to COVID-19 and individuals with underlying chronic disease are at greater risk for COVID-19.^{4,5} Chronic diseases, weakness of the immune system and the development of respiratory failure together with the disease are effective in increasing mortality rates.⁶

Although COVID-19 affects people of all ages, the elderly and people with chronic diseases are more affected.⁷ In general, age, dementia, chronic diseases such as cardiovascular disease, hypertension, diabetes mellitus and obesity are major risk factors for COVID-19. Particularly individuals with cognitive impairment are considered vulnerable to this infection.⁸

According to 2023 data, there are over 55 million dementia patients in the world. The COVID-19 outbreak has also affected patients with Alzheimer's disease (AD). In addition to the cognitive and behavioral problems that arise due to dementia in this patient group, symptoms related to the diagnosis of COVID-19 make care more difficult.

For all these reasons, experiencing COVID-19 infection in elderly people with cognitive decline is a burden for both healthcare professionals and healthcare institutions. The use of the nursing process in care practice is extremely necessary and important to reduce this burden, to have the desired quality of care, to handle the individual with a holistic approach, and to use of time effectively.

The nursing process, which is a systematic problemsolving method, provides a basis for the nurse's practice using her knowledge and skills. Although it is a systematic evaluation method, it also provides the diagnosis, planning, implementation and evaluation of individualized care. In this way, it forms the basis of nursing practices based on scientific problem-solving method. At the same time, it allows the nurse to present their knowledge and skills within a certain framework, as well as providing continuity in care.¹¹

Nursing diagnoses are used in the effective management of the nursing process. Nursing diagnosis is defined as clinical decisions that are actual or potentially determined regarding the status of the individual, family or group and these clinical decisions are a comment and conclusion about patient's needs, interests or health problems, or the decisions to act or not.12 NANDA-I taxonomy created by the North American Nursing Diagnosis Association for nursing practices; includes 13 domains, 47 classes, and 244 nursing diagnoses.¹³ It is extremely important to plan appropriate interventions after determining the nursing diagnosis. For this reason, Nursing Intervention Classification (NIC) is used. NIC is one of the nursing classification systems in which nursing practices are standardized.14 It can be used in care plans for individuals and families, in all clinics and specialty areas where nursing practices exist.¹⁵ There are 30 classes, 565 initiatives and 7 domains. 16,17 In this case report, the aim is to create a care plan in line with NIC nursing interventions by using NANDA-I diagnoses of Alzheimer's disease patient with COVID-19 and hospitalized in the ward.

METHOD

The case was diagnosed according to the Life Activities Model of Roper, Logan and Tierney.

Case Report

The 88-year-old female case had been suffering from Alzheimer's disease for about 10 years. She had two sons and had been living in a nursing home for the last 5 years. She had no alcohol or smoking habits. She was brought to the hospital with respiratory distress and high fever on April 10, 2020. Laboratory findings and vital signs are included in Box 1.

Laboratory Findings		The reference range		Laboratory Findings		The reference range
Lymphocyte: 37.6%		10.00-50.00%		C-Reactive Protein: 4.3		0.0-0.5 mg/dL
Leukocyte: 4.59		4.000-10.000		Blood Urea Nitrogen: 42		15.00-40.00 mg/dL
Neutrophil: 55.6%		40.00-80.00%		Creatine: 1.48		0.72-1.25 mg/dL
Hemoglobin: 13		12-16 g/dL.		Aspartate Aminotransferase: 113		5.0-34.0 U/L
Platelets: 209.000		150.000-450.000/mm3		Alanine Aminotransferase: 111		0.0-55.0 U/L
Vital Signs	Temperature:	38 °C	Blood Pressure:		Pulse: 104/min.	Respirations:27/min.
			130/80 mmHg.			

Box 1. Laboratory findings and vital signs

DOI: 10.33308/2687248X.202462323

RESULTS

Medical Treatment

Medication was started with Favipiravir 2X600 mg (PO), Heparin 2 X 0,8 IU (SC), Ecopirin 2 X 100 mg. (PO) Zitro 1X500 mg (PO), Tamiflu 2X75 mg (PO), Plaquanil 2X400 mg (PO) and intravenous infusion with Isotonic NaCl (1000 ml) on April 10, 2020. In addition, Exelon patch 9,5 mg/24 h (transdermal patch) used by the case for AD was continued. 8 lt/min oxygen therapy, daily ECG monitoring, and 2 X 1 blood glucose measurement were performed.

Nursing Diagnosis in Line with Life Activities Model of Roper, Logan and Tierney

Daily Living Activity 1- Maintain a Safe Environment

She was hospitalized with the diagnosis of COVID-19 based on Polymerase Chain Reaction (PCR) test and computed tomography (CT). Glasgow Coma Scale was 10/15 points at hospitalization.

Daily Living Activity 2- Communication

The case was responding only to painful and verbal stimuli, had no orientation, was prone to sleep and was very slow to perceive.

Daily Living Activity 3- Breathing

Respiratory rate of the case with respiratory distress was 27/min and bilateral rales were detected on physical examination on admission to the ward. Oxygen saturation was 80% in room air, between 88-90% with nasal cannula (8 lt / min.)

Daily Living Activity 4- Food

The case was reluctant to eat and only took oral fluids. She took 1000 ml of fluid orally in the first 24 hours. Prosthetic teeth had been removed on admission. Fasting blood glucose at hospitalization was determined as 229 mg/dl. Blood glucose measurement was controlled twice a day. Body mass index was 21.3 kg / m2 (150 cm and 48 kg). The mucous membrane was quite dry. Total protein (6.7g/dl.) and albumin (3.7g/dl.) levels were within the reference range.

Daily Living Activity 5- Elimination

She had difficulty in controlling her urination. Hourly urine output varied between 20-30 ml. 1500 ml of urine was output in the first 24 hours. She defecated after the first 24 hours.

Daily Living Activity 6- Personal Hygiene and Clothing

She was meeting all personal needs with assistance and had difficulty cooperating with hygienic requirements.

Daily Living Activity 7- Body Temperature

The tympanic body temperature was 38 $^{\circ}$ C on admission to the war. The facial area, especially the cheeks, was red.

Daily Living Activity 8- Mobility

She could move in bed with assistance as her mobility was limited. Position change was provided at least every two hours. She was evaluated as high risk with a score of 7 in terms of pressure ulcer risk according to the Braden Risk Assessment Scale. Since the score obtained on the Itaki fall risk scale was 11, the fall risk was also determined as high.

Daily Living Activity 9- Work and Leisure

The case was a housewife and she had received a pension from her husband. She had been living in a state-owned nursing home for about 5 years.

Daily Living Activity 10- Expressing Sexuality

She had gone through menopause at the age of 40 and her husband had died 20 years ago.

Daily Living Activity 11- Sleep

The case was prone to sleep and preferred to sleep in the semi-fowler position. She was waking up intermittently due to respiratory distress.

Daily Living Activity 12- Dying

No information could be obtained about the patient's feelings towards death. However, she had expressions such as "help me" during periods of intense respiratory distress.

DISCUSSION

People with dementia have limitations in accessing accurate information and facts about the COVID-19 pandemic. They may have difficulty remembering self-protection procedures, such as wearing a mask, or understanding the information provided. They may ignore warnings because of not understanding. Therefore, they are in the higher risk group.⁴ In addition, nursing homes have been the most vulnerable places against COVID-19, as they are living spaces for the elderly with chronic diseases. This situation has resulted in a high rate of serious complications and mortality.¹⁸ This case is in the risk group due to the diagnosis of Alzheimer's and living in a nursing home.

Communication Activity

Environmental changes cause more intense cognitive, behavioral and psychological effects in elderly patients with dementia. Although the mood of people with dementia has changed during the COVID-19 pandemic, they may not want to communicate with the others due to hopelessness, especially in patients with AD. Although this case responded to painful and verbal stimuli, she had a greater desire for more sleep. She was reacting to verbal stimuli, but sometimes had

DOI: 10.33308/2687248X.202462323

difficulty doing what was asked. From time to time she asked the question of where she was. After the first 7 days, she started to adapt to the environment and behave more collaboratively towards the verbal requests of nurses (Table 1).

Breathing Activity

Although fever and respiratory tract infection symptoms and pneumonia findings are observed in moderate cases with COVID-19, in severe cases, respiratory rate is 30/min or oxygen saturation is ≤93%.²¹ The respiratory rate of this case with respiratory distress was 27/min on admission to the ward. Bilateral rales were detected on physical examination. Oxygen therapy was performed with a nasal cannula (8 lt/min). Breathing continued rapidly and deeply. On the 7th day of hospitalization, dyspnea was relatively decreased. Oxygen saturation was around 90% (Table 1).

Food Activity

The restriction and isolation caused by COVID-19 is shown as a factor affecting anorexia and malnutrition in particular due to the interruption of activities that facilitate nutrition and social life. In connection with this, loss of appetite is frequently reported.²² When this case was first admitted to the hospital, she had a very poor appetite. Breathing difficulties also triggered reluctance in eating activities. For this reason, she was fed frequently but in small amounts with light, soft and fibrous foods. There was no weight loss that would take the BMI out of normal range. Dental prostheses were definitely placed before each feeding. Although fasting blood glucose was 229 mg/dl during hospitalization, frequent and low-interval diet-oriented nutrition prevented fluctuation in blood glucose. She was followed up with twice daily blood glucose measurements. Although the oral mucous membrane was dry, it improved with the support of fluid intake (Table 1).

Elimination Activity

It has been reported that diarrhea may occur in addition to the predominant symptoms.²³ However, in this case, there was no problem related to bowel evacuation such as diarrhea or constipation. Urinary control was achieved without inserting a urinary catheter for the first 7 days but, since the incontinence continued, a foley catheter was applied on the 8th day. Genital area was cleaned frequently, and no urinary tract infection was observed (Table 1).

Personal Hygiene and Clothing Activity

A general lack of motivation or interest in activities is increasingly experienced in individuals with dementia during the COVID-19 pandemic.²⁰ Apathy has been

reported as the most common behavioral disorder to occur in prolonged isolation, particularly from social restriction associated with COVID-19.²⁴ Patients with apathy are less likely to initiate behaviors necessary to prevent transmission of the virus, including self-care and personal hygiene, hand washing, or covering their mouth while coughing.²⁰ In this case, she was able to meet all of her personal needs with assistance. She had difficulty in cooperating in meeting her hygienic needs due to communication problems and reluctance to participate. She was completely dependent on others to meet her hygienic needs during her stay in the hospital (Table 1).

Body Temperature Activity

Although the symptoms present at the beginning of the disease vary, one of the most common symptoms is fever. It was reported that only 43.8% of the patients had fever at the first admission and 87.9% of them had fever after hospitalization.²⁵ However, people who are elderly or immunocompromised may not have a fever.²³ When the case was admitted to the ward, the body temperature taken from the tympanic way was 38 °C. The body temperature was 38-38.5 °C for the first 10 days, and 37-37.5 °C after the 11th day (Table 1).

Mobility Activity

Prolonged apathy may also cause patients to spend more time in bed, increasing the risk of pressure ulcer.²² This case was assessed as high risk for pressure ulcer with a score of 7 on the Braden Risk Assessment Scale. Despite limited mobility, the case was turned in bed with assistance in two hours. No pressure ulcer was observed. Falls are a common problem affecting the elderly. According to the Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) reports, one in three elderly over 65 years old and 50% of the elderly over 80 years old fall each year.²⁶ Especially cognitive decline is one of the most important factors that increase the fall risk. It has been shown that lack of physical exercise in a short period of three months in elderly individuals causes further decline in cognitive functions.²⁷ In this case, as well, decrease in cognitive competence and inactivity emerge as factors that increase the fall risk. Despite the high fall risk of 11 score on the Itaki fall risk scale, there was no fall in this case (Table 1).

Discharge Process

The case was discharged on May 07, 2020 after a 27-day hospitalization period. The vital signs were as follows; body temperature was 36 °C (fever was within normal range in the last 48 hours), pulse was 100/min., respiration was 22/min., blood pressure was 110/70 mm/Hg and saturation was 95%. It was immunoglobulin M(IGM) + and immunoglobulin G(IGG) + as a result of the rapid test. A control appointment was made for two weeks later.

Table 1. Nursing care plan of the case according NANDA-I and NIC							
Nursing Diagnosis*	Nursing Initiatives**	Evaluation					
Domain / Class							
Domain 2. Nutrition Class 1. Ingestion Defining characteristics: Insufficient interest in food, Alteration in taste sensation Related factors: Insufficient dietary intake Diagnosis: Imbalanced nutrition: less than body requirements (00002) Expected Result: BMI will be kept within normal limits.	Nutrition therapy (1120) Nutrition management (1100) The number of calories and type of nutrients needed to meet nutrition requirements, as appropriate were determined in collaboration with the dietitian. Oral care was provided before meals, as needed Light, soft and fibrous foods were preferred in the diet. Foods were served at a temperature suitable for consumption. Dental Prostheses were placed before the meal. Semi-fowler position was given.	BMI: 21,3 kg / m ² Lack of appetite continues. She is fed in small amounts at more frequent intervals. Light, soft and fibrous foods were preferred in her diet Total protein and albumin levels are within the reference range. Blood glucose level is normal. No weight loss.					
Domain 3. Elimination and exchange	Urinary incontinence care (0610)	Incontinence pad was used for the first 7					
Class 1. Urinary function Defining characteristics: Urinary incontinence Related factors: Multiple causality Diagnosis: Impaired urinary elimination (00016) Expected Result: Urinary discharge control will be provided. Urinary infection development will be prevented.	Privacy for elimination was provided. Urinary elimination was monitored including frequency, consistency, odor, volume, and color. The appropriate incontinence pad was chosen. Protective garments were chosen. The genital skin area was cleaned at regular intervals. It was planned to drink only water as a liquid. Urine culture was taken. Intravenous infusion was continued with Isotonic NaCl as 1000 ml.	days. Since the incontinence continued, a foley catheter was applied on the 8th day. The genital skin area was cleaned every morning and evening. The urine culture result was negative. BUN: 42 mg/dL Creatine: 1.48 mg/dL Na:140 mmol/L In monitoring the daily fluid intake and output, the 24-hour balance is -200 mlt.					
Domain 3. Elimination and exchange Class 4. Respiratory function Defining characteristics: Dyspnea, hypoxemia Related factors: Alveolar-capillary membrane changes Diagnosis: Impaired gas exchange (00030) Expected Result: Airway patency will be maintained. There will be no dyspnea and lung sounds will be evaluated. The development of respiratory complications will be prevented.	Airway management (3140) Oxygen therapy (3320) Respiratory and oxygenation status was monitored. A position was placed to support comfortable breathing. Oral and nasal secretions were cleared. Airway patency was maintained. Oxygen therapy was administered as 8 lt/min with canul. The oxygen liter flow was monitored. The effectiveness of oxygen therapy was monitored. She was monitored for signs of oxygen toxicity. Skin sensitivity to the oxygen cannula was checked. The medication recommended by the doctor was continued.	Breathing was fast and deep. Arterial blood gas: 7.34 mEq/L. On the 7 th day of hospitalization, dyspnea decreased. Oxygen saturation: 90%					
Domain 4. Activity/rest Class 4. Cardiovascular/pulmonary responses Defining characteristics: Fatigue, Exertional dyspnea Related factors: Imbalance between oxygen supply/demand Diagnosis: Activity intolerance (00092) Expected Result: She will be supported to increase activity tolerance	Activity therapy (4310) Bed rest care (0740) She was assisted with her activities of daily living. She was turned at every 2 hours according to a specific schedule. Passive range of motion exercises were performed in the bed. Bedding was ensured to be clean, dry and wrinkle-free. The appropriate position has been given. Appliances to prevent foot drop were applied. Trapeze was used to facilitate movement inside the bed. Side rails have been raised. The skin condition was monitored. All medications included in the treatment were administered by nurses.	Activity intolerance continued. She was mobilized in bed with assistance. Hemoglobin: 13 g/dL Oxygen saturation: 90%					
Domain 4. Activity/rest Class 5. Self-care Defining characteristics: Impaired ability to wash body Related factors: Weakness, decrease in motivation, cognitive impairment Diagnosis: Bathing self-care deficit (00108) Expected Result: Needs for self-care will be met. Patient participation will be provided to the extent possible. Domain 5. Perception/cognition	Self-care assistance (1800) Self-care assistance: Bathing/hygiene (1801) Amount and type of assistance needed have been determined. She was assisted in providing self-care. Support was provided in ensuring the participation of the patient. Oral care was done. Body cleaning was done inside the bed. Nail cleaning was done. Skin integrity was monitored. Communication enhancement: Speech deficit (4976)	Bathroom and hygienic needs were met with the assistance. Lightweight and easy-to-move clothing was dressed. It continues to be unable to independently meet her hygienic requirements. She had difficulty expressing herself.					
Class 5. Communication Defining characteristics: Difficulty comprehending communication, difficulty verbalizing Related factors: Alteration in self-concept Diagnosis: Impaired verbal communication (00051)	Frustration, anger, depression, or other responses to impaired speech capabilities were monitored. The communication style of the patient was followed in order to meet her needs. Noise was prevented to reduce sensory stress. What her said to ensure accuracy was repeated. The conversations were done slowly. Short and simple expressions were used.	She gave very short responses like "I have difficulty breathing" or "I have pain".					

[
Expected Result:	She was encouraged to express herself in a way that she	
Communication will be provided as much as possible. Domain 11. Safety/protection	could easily see us. Oral health restoration (1730)	Oral mucous membrane integrity was not
Class 2. Physical injury	Oral health maintenance (1710)	compromised.
Risk factors: Inadequate oral hygiene, barrier to oral	Nutrition and fluid intake was monitored.	compromised.
self-care	Dry mouth was followed.	
Diagnosis: Risk for impaired oral mucous	Oral care was done.	
membrane integrity (00247)	The mouth was rinsed with drinking water.	
memorane megray (00217)	She was supported in terms of oral fluid intake.	
Expected Result:	She was evaluated for mucositis.	
Oral mucous membrane integrity will be preserved.	Lubricant was applied to moisturize the lips.	
Domain 11. Safety/protection	Pressure ulcer prevention (3540)	Pressure ulcer was not seen.
Class 2. Physical injury	Risk factors was evaluated with Braden Risk Assessment	She was mobilized in bed with assistance.
Risk factors: Decrease in mobility, Braden Risk	Scale.	
Assessment Scale score, hyperthermia, cognitive	Skin status was monitored on admission and daily.	
impairment	The dampness caused by sweating and inotinance was	
Diagnosis: Risk for pressure ulcer (00249)	removed.	
•	The position was changed every 2 hours.	
Expected Result:	It was supported with a pillow to elevate to the areas in	
Pressure ulcer will be prevented	contact with the bed.	
	Bedding was ensured to be wrinkle free and dry.	
	Dry skin area moistened.	
	The area with bone protrusion was not massaged.	
	Elbow and heel protectors were applied.	
	"Donut" type devices were not used in the sacral area.	
	Friction was prevented during rotation in the bed.	
	Mild pH soap was used for skin cleansing.	
	Very hot water was not used while taking a bath.	
Domain 11. Safety/protection	Fall prevention (6490)	There is no change in the falling risk score
Class 2. Physical injury	Fall risk assessment was made every day.	of the itaki.
Risk factors: Age \geq 65 years, The lower fall risk score	Bed lock and side rails were kept closed.	The fall did not occur.
is 11 Diagnosia, Bisk for follo (00155)	Bed level adjusted properly.	
Diagnosis: Risk for falls (00155)	Necessary arrangements were made regarding the physical environment that could cause a fall during the	
	movement.	
Expected Result:	Adequate lighting was provided to support vision.	
Falls will be prevented.	She used shoes that fully grasped her feet to get her out of	
Tans will be prevented.	bed.	
Domain 11. Safety/protection	Bleeding precautions (4010)	No signs or symptoms of bleeding
Class 2. Physical injury		developed.
Risk factors: Use of anticoagulants.	She was monitored closely for signs and symptoms of	
Diagnosis: Risk for bleeding (00206)	internal and external hemorrhage (petechiae, ecchymosis,	
Expected Result: There will be no signs or symptoms	hematoma, hematuria, hematemesis, hemoptysis, etc.).	
of bleeding.	Monitoring of intake and output was carefully done.	
	IV access was maintained, as appropriate.	
	Hemoglobin and hematocrit levels were monitored.	
D 11 G.C. /	TT (1	P. 1
Domain 11. Safety/protection	Hyperthermia treatment (3786)	Body temperature was 38-38.5 °C for the
Class 6. Thermoregulation	Airway patency ensured.	first 10 days.
Defining characteristics: Flushed skin, skin warm to	Vital signs were monitored. Oxygen therapy was applied	From the 11 th day, it continued in the range
touch	in accordance with the treatment plan.	of 37-37.5 °C.
Expected Decults	Clothes were loosened.	
Expected Result: Dehydration, Illness	Oral rehydrating solution was provided. External cooling methods (e.g., cold packs to neck, chest,	
Denyuration, inness	abdomen, scalp, armpit) were applied.	
Diagnosis: Hyperthermia (00007)	Intra venous (IV) access was established.	
Diagnosis, Hypermerma (0000/)	Urine output was monitored.	
Expected Result:	Electrolytes and arterial blood gases were monitored.	
Temoregulation will be provided.	Abnormalities in mental status were monitored.	
	Abhormanies in mental status were monitored.	

^{* 13 (}Heather, Herdman & Kamitsuru, 2018), ** 17 (Bulechek, Butcher, Dochterman & Wagner, 2018)

CONCLUSION

Nursing care models are necessary for the holistic evaluation of the patient and providing a common terminology among nurses. As long as the vaccination against COVID-19 is not completed all over the world, it is possible to face with more treatment and care of the elderly and chronic patients who are accepted as a risky group. Alzheimer's is an irreversible and progressive process. In these patients, memory, motor

skills and social communication are also impaired, as well as a high level of insufficiency in meeting daily life activities. The fact that the patient is also diagnosed with COVID-19 may cause more difficulties for both herself and the nurses in establishing communication and meeting the needs. During the COVID-19 pandemic, patient monitoring and providing qualified nursing care are of great importance. As a result, accurate diagnosis of the patient with COVID-19 with NANDA-I and comprehensive and objective care

DOI: 10.33308/2687248X.202462323

needs of with NIC provide guidance in clinical decision-making and applications. In addition, it is effective and important for nurses to use their time better and prevent loss of work force, and allows individualized care to be given at an optimal level. As a result, despite all these difficulties, the case was discharged at the end of 27 days with the symptoms related to the COVID-19 disappeared and the PCR test is negative, in line with the nursing interventions in accordance with the nursing diagnoses with a good

follow-up as well as the medical treatment.

Ethical consideration

The study was carried out according to the principles of the Declaration of Helsinki. Within the scope of the study, the patient was expressed as a case in order to protect the privacy of the individual. Before the data collection phase, consent was obtained from the legal guardian of the patient by giving information about the purpose of the study. It was informed that the information regarding the case would be used for scientific purposes and would not be shared with other individuals or institutions.

Yazar Katkıları

Çalışma fikri/tasarımı: AT, HT

Veri toplama: AT, HT

Veri analizi ve yorumlama: AT, HT

Literatür tarama: AT, HT Eleştirel inceleme: AT, HT Son onay ve sorumluluk: AT, HT

Çıkar çatışması: Yazarlar çıkar çatışması beyan etmemiştir.

Finansal Destek: Yazarlar finansal destek beyan etmemistir.

REFERENCES

- Erdinç K, Çolak T. What to do when a patient infected with covid-19 needs an operation: A presurgery, peri-surgery and post-surgery guide. *Turk J Colorectal Dis*. 2020;30:1-8. https://doi.org/10.4274/tjcd.galenos.2020.2020-3-7.
- Priyadarsini Lakshmi S, Suresh M. İnfluencing the epidemiological characteristics of pandemic COVID 19: A TISM approach. *International Journal of Healthcare Management*. 2020;13(2):89-98. https://doi.org/10.1080/20479700.2020.1755804.
- World Health Organization. Coronavirus (COVID-19). 2021 Dashboard. Retrieved from https://www.who.int/ November 13, 2023.
- Wang H, Li T, Barbarino P, Gauthier S, Brodaty H, Luis J, et al. Dementia care during COVID-19. *The Lancet*. 2020; 395 (10231): 1190-1191. doi.org/10.1016/S0140-6736(20)30755-8
- Watkins J. Preventing a COVID-19 pandemic. BMJ. 2020;368:m810. https://doi.org/10.1136/bmj.m810.

- Wu Z, McGoogan JM. Characteristics of and important lessons from the coronavirus disease 2019 (COVID-19) outbreak in China: summary of a report of 72 314 cases from the Chinese Center for Disease Control and Prevention. *JAMA*. 2020; 323(13):1239-42. https://doi.org/10.1001/jama.2020.2648.
- Onder G, Rezza G, Brusaferro S. Case-fatality rate and characteristics of patients dying in relation to COVID19 in Italy. *JAMA*. 2020;323(18):1775-6. https://doi.org/10.1001/jama.2020.4683
- Korczyn Amos D. Dementia in the COVID-19 Period. Journal of Alzheimer's Disease. 2020;75(4):1071-2. https://doi.org/10.3233/JAD-200609.
- World Health Organization. https://www.who.int/news-room/fact-sheets/detail/dementia Accessed November 8, 2023.
- Keng A, Brown EE, Rostas A, Rajji TK, Pollock Bruce G, Mulsant Benoit H, et al. Effectively caring for individuals with behavioral and psychological symptoms of dementia during the Covid-19 pandemic. *Frontiers in Psychiatry*. 2020;11:1-9. https://doi.org/10.3389/fpsyt.2020.573367
- Baraki Z, Girmay F, Kidanu K, Gerensea H, Gezehgne D, Teklay H. A cross sectional study on nursing process implementation and associated factors among nurses working in selected hospitals of Central and Northwest zones, Tigray Region, Ethiopia. *BMC Nursing*. 2017;16(54):2-9. https://doi.org/10.1186/s12912-017-0248-9.
- González-Aguña A, Jiménez-Rodríguez ML, Fernández-Batalla M, Herrero-Jaén S, Monsalvo-San Macario, E, Real-Martínez, V, et al. Nursing diagnoses for coronavirus disease, COVID-19: Identification by taxonomic triangulation. *International Journal of Nursing Knowledge*. 2021;32(2):108-16. https://onlinelibrary.wiley.com/doi/10.1111/2047-3095.12301.
- Heather T, Herdman H, Kamitsuru, S. Nursing Diagnoses Definitions and Classification 2018-2020. Thieme Publishers New York; 2018.
- Johnson M, Moorhead S, Bulechek G, Butcher H, Maas M, Swanson E. NOC and NIC Linkages to NANDA-I and Clinical Conditions. Supporting Clinical Reasoning and Quality Care. Elsevier 2012.
- Moorhead S, Gonçalves Rezende Macieira T, Dunn Lopez K, Monteiro Mantovani V, Swanson E, Wagner C, et al. NANDA-I, NOC, and NIC linkages to sars-cov-2 (COVID-19): Part 1. community response. *International Journal of Nursing Knowledge*. 2021;32(1):59-67. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7 300683/pdf/IJNT-9999-na.pdf.
- Othman Elham H, Shatnawi F, Alrajabi O, Alasad Alshraideh J. Reporting nursing interventions classification and nursing outcomes classification in nursing research: A systematic review. International *Journal of Nursing Knowledge*. 2020;31(1):19-36. https://doi.org/10.1111/2047-3095.12265

- 17. Bulechek GM, Butcher HK, Dochterman Wagner C. *Nursing Interventions Classification (NIC)*: Elsevier Health Sciences 2018.
- Barnett ML, Grabowski DC. Nursing homes are ground zero for COVID-19 pandemic. *JAMA Health Forum*. 2020;1(3):e200369. https://doi.org/10.1001/jamahealthforum.2020.0369.
- Garcia-Ptacek S, Farahmand B, Kåreholt I, Religa, D, Cuadrado ML, Eriksdotter M. Mortality risk after dementia diagnosis by dementia type and underlying factors: a cohort of 15,209 patients based on the Swedish Dementia Registry. *Journal* of Alzheimer's Disease. 2014;41(2):467-77. 10.3233/JAD-131856.
- Simonetti A, Pais C, Jones M, Camilla Cipriani M, Janiri D, Monti L, et al. Neuropsychiatric symptoms in elderly with dementia during covid-19 pandemic: Definition, treatment, and future directions. *Frontiers in Psychiatry*. 2020;11:1-9. doi.org/10.3389/fpsyt.2020.579842.
- 21. Huang H, Cai S, Li Y, Li Y, Fan Y, Li L et. al. Prognostic factors for COVID-19 pneumonia progression to severe symptoms based on earlier clinical features: A retrospective analysis. *Frontiers in Medicine*. 2020;7:557453. https://doi.org/10.3389/fmed.2020.557453
- 22. Edelman LS, McConnell ES, Kennerly SM, Alderden J, Horn SD, Yap TL. Mitigating the effects of a pandemic: facilitating improved nursing home care delivery through technology. *JMIR Aging*. 2020;3(1):e20110.

- https://doi.org/10.2196/preprints.20110.
- 23. Çelik D, Köse Ş. COVID-19 in adults: Clinical findings. *Tepecik Eğitim ve Araştırma Hastanesi Dergisi*. 2020;30:43-8. https://doi.org/10.5222/terh.2020.88896.
- Gerritsen DL, Oude Voshaar RC. The effects of the COVID-19 virus on mental healthcare for older people in The Netherlands. *Int Psychogeriatr*.
 - 2020;3:1-4. https://doi.org/10.1017/S1041610220001040
- Guan WJ, Ni ZY, Hu Y, Liang WH, Ou CQ, He JX, et al. Clinical characteristics of coronavirus disease 2019 in China. *The New England Journal of Medicine*. 2020;382(18):1708-20. https://doi.org/10.1056/NEJMoa2002032.
- Yılmaz S, Khorshid L. Falls and risk factors in elderly patients. İzmir Kâtip Çelebi Üniversitesi Sağlık Bilimleri Fakültesi Dergisi. 2019;4(3):117-21
 - $\underline{https://dergipark.org.tr/en/download/article-file/905453}.$
- Pelicioni PHS, Lord SR. COVID-19 will severely impact older people's lives, and in many more ways than you think. *Brazilian Journal of Physical Therapy*. 2020;24(4):293-4. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7 252007/pdf/main.pdf.