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Assessment of Mediterranean Diet Adherence, Appetite Status, and Malnutrition in Elderly Patients with Chronic Obstructive Pulmonary Disease

Yaşlı Kronik Obstrüktif Akciğer Hastalarında Akdeniz Diyetine Uyum, İştah Durumu ve Malnütrisyonun Değerlendirilmesi

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ABSTRACT

Background: This study aimed to assess adherence to the Mediterranean diet, appetite status, and malnutrition among elderly patients with chronic obstructive pulmonary disease (COPD) hospitalized in a chest diseases ward and to examine the relationship between Mediterranean diet adherence and nutritional status and appetite.

Materials and Methods: This cross-sectional, descriptive study included 200 patients with COPD aged 65 years and older who were hospitalized at the University of Health Sciences Türkiye, Antalya Training and Research Hospital, Clinic of Chest Disease and were evaluated after becoming clinically stable. Adherence to the Mediterranean diet was assessed with the Mediterranean Diet Adherence Screener (MEDAS), appetite status was assessed with the Simplified Nutritional Appetite Questionnaire, malnutrition was assessed with the Mini Nutritional Assessment (MNA), and sarcopenia risk was assessed with sarcopenia screening tool.

Results: The mean age of participants was 74.69 ± 6.03 years, and 61.5% had low adherence to the Mediterranean diet. According to the MNA, 97.0% of participants were classified as malnourished. Risk of poor appetite and weight loss was found in 95.0% of individuals, and risk of sarcopenia was found in 99.0%. No significant differences were found between Mediterranean diet adherence groups anthropometric measurements, nutritional status, appetite, or sarcopenia risk ($p > 0.05$). Correlation analysis showed a weak but statistically significant negative relationship between MEDAS score and body mass index (BMI) ($r = -0.204$; $p = 0.004$), whereas no significant relationships were observed with the other variables.

Conclusion: Hospitalized older patients with COPD exhibit a high prevalence of malnutrition and an increased risk of appetite-related weight loss and sarcopenia, despite an elevated mean BMI and low adherence to the Mediterranean diet. Routine screening using multidimensional tools at admission is essential, and patients at risk should be referred for comprehensive assessment and tailored nutritional care.

Keywords: Chronic obstructive pulmonary disease, Mediterranean diet, malnutrition, appetite, sarcopenia

ÖZ

Amaç: Bu çalışma, göğüs hastalıkları servisinde yatan yaşlı kronik obstrüktif akciğer hastalarında (KOAH) Akdeniz diyetine uyum, iştah durumu ve malnütrisyon durumunu değerlendirmek; ayrıca Akdeniz diyetine uyumun beslenme durumu ve iştah ile ilişkisini incelemek amacıyla gerçekleştirildi.

Gereç ve Yöntemler: Kesitsel ve tanımlayıcı tipteki bu çalışmaya Antalya Sağlık Bilimleri Üniversitesi Eğitim ve Araştırma Hastanesi Göğüs Hastalıkları Kliniği'nde yatan, klinik olarak stabil hale geldikten sonra değerlendirilen 65 yaş ve üzeri 200 KOAH hastası dahil edilmiştir. Akdeniz diyetine uyum Akdeniz Diyeti Uyum Tarama Ölçeği (Mediterranean Diet Adherence Screener, MEDAS), iştah durumu Basitleştirilmiş Beslenme İştah Anketi malnütrisyon Mini Nütrisyonel Değerlendirme Anketi (Mini Nutritional Assessment, MNA) ve sarkopeni riski ise SARC-F ile değerlendirilmiştir.

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öz

Bulgular: Katılımcıların yaş ortalaması 74,69 ± 6,03 yıl olup %61,5'inde Akdeniz diyetine uyumun düşük düzeyde olduğu görülmektedir. Katılımcıların %97,0'si MNA'ya göre malnütrisyonlu olarak değerlendirilmiştir. Bireylerin %95,0'inde azalmış iştah ve vücut ağırlığı kaybı riski, %99,0'unda ise sarkopeni riski saptanmıştır. Akdeniz diyetine uyum düzeyine göre antropometrik ölçümler, beslenme durumu, iştah ve sarkopeni riski açısından gruplar arasında anlamlı farklılık bulunmamıştır (p > 0,05). Korelasyon analizinde ise MEDAS puanı ile beden kütle indeksi arasında zayıf düzeyde negatif yönlü anlamlı ilişki saptanırken (r = -0,204; p = 0,004), diğer değişkenlerle anlamlı ilişki belirlenmemiştir.

Sonuç: Göğüs hastalıkları servisinde yatan yaşlı KOAH hastalarında yüksek ortalama BKİ'ye rağmen malnütrisyon, iştahsızlığa bağlı ağırlık kaybı riski ve sarkopeni riski son derece yaygın olup, Akdeniz diyetine uyum genel olarak düşüktür. Hastaneye yatışta çok boyutlu tarama araçlarıyla rutin değerlendirme yapılmalı ve risk saptanan hastalar kapsamlı ileri değerlendirme ve uygun beslenme bakımına yönlendirilmelidir.

Anahtar Kelimeler: Kronik obstrüktif akciğer hastalığı, Akdeniz diyeti, malnutrisyon, iştah, sarkopeni

Introduction

Chronic obstructive pulmonary disease (COPD) is a respiratory disease characterized by progressive airway obstruction, which causes significant morbidity and mortality. With population aging and the growing burden of chronic disease, COPD has become an important public health problem, particularly among older adults. In addition to the pulmonary effects of the disease, nutritional disorders, muscle loss, and functional impairments in particular negatively affect the prognosis of the disease (1).

Malnutrition is a common comorbidity in COPD. Reported prevalence rates range from 20% to 45%, and the risk reaches up to 50% (2-4). These variations largely depend on the care setting (outpatient vs. inpatient), patient age, disease complexity, and screening tool used. A global meta-analysis reported an overall malnutrition prevalence of 30% and a risk of 50%, linking poor nutritional status to worse dyspnea, reduced exercise capacity, and higher mortality (2). In elderly cohorts, malnutrition is particularly associated with increased hospital readmissions (3). Furthermore, in complex cases assessed with tools such as the Mini Nutritional Assessment (MNA), it independently predicts acute exacerbations and poor clinical outcomes (4). Therefore, routine nutritional assessment is considered an essential component of COPD management (5).

Sarcopenia frequently accompanies malnutrition in patients with COPD. In the meta-analysis by He et al. (6) sarcopenia was reported to be present in approximately one in every three COPD patients, and this rate was shown to increase with advancing age. It has also been noted that the co-occurrence of malnutrition and sarcopenia in elderly COPD patients is more common particularly in individuals with severe airway obstruction, and creates negative effects on functional capacity (7). For this reason, it is recommended that, in elderly COPD patients, not only nutritional status but also sarcopenia risk be assessed using appropriate screening tools.

Loss of appetite is an important but often overlooked factor affecting nutritional status in COPD. Reported prevalence rates vary between 17% and 61% depending on the assessment tool used (8,9). Patients with appetite loss experience poorer lung function, higher symptom burden, and more frequent hospitalizations and exacerbations (9). Although appetite loss alone does not fully explain long-term weight or muscle loss, which can be due to other factors such as systemic inflammation, it serves as an early and modifiable warning sign of nutritional decline. Therefore, early identification of appetite loss in COPD patients is critical to prevent the development of overt malnutrition and muscle wasting (10).

The Mediterranean diet is a dietary pattern characterized by high consumption of vegetables, fruits, legumes, whole grains, olive oil, and fish, and is distinguished by its antioxidant and anti-inflammatory properties. In recent years, the effect of adherence to the Mediterranean diet on COPD-related health outcomes has been increasingly investigated. High Mediterranean diet adherence has been reported to be associated with better lung function, lower mortality risk, less fatigue, better quality of life, and healthier body weight (11-13). In addition, components of the Mediterranean diet may contribute to reduced inflammation, increased antioxidant capacity, and preserved muscle function (14).

Although numerous studies have evaluated malnutrition, appetite loss, and Mediterranean diet adherence separately in COPD, research examining these factors together in older adults is limited. To our knowledge, limited evidence is available on the simultaneous evaluation of Mediterranean diet adherence, appetite, malnutrition, and sarcopenia risk among hospitalized older adults with COPD. Current reviews and consensus reports emphasize the need for studies that

comprehensively assess diet quality and nutritional status to strengthen the evidence in this area (1,15).

The aim of this study is to assess Mediterranean diet adherence, appetite status, and nutritional status in elderly COPD patients hospitalized in the department of chest diseases and to examine the relationship between Mediterranean diet adherence and these parameters.

Materials and Methods

Study Design and Sample

This cross-sectional analytical study was conducted at University of Health Sciences Türkiye, Antalya Training and Research Hospital. The study population comprised individuals aged 65 years and older who were hospitalized in the Chest Diseases Department with a diagnosis of COPD during data collection. The diagnosis of COPD was previously established by a pulmonologist based on the patients' clinical history, symptoms, and existing pulmonary function test records; no de novo diagnosis was made for this study. Patients who were hospitalized and receiving treatment for COPD in the chest diseases department were included in the research. Assessments were conducted within the first 48 to 72 hours of hospital admission, following the stabilization of acute symptoms and confirmation of clinical stability (as assessed by the attending physician), by the attending physician. The sample consisted of 200 elderly COPD patients.

The sample size of the study was calculated using the G*Power 3.1 program. The minimum sample size required to detect a relationship of at least r = 0.20 between Mediterranean Diet Adherence Screener (MEDAS) and MNA scores, with 80% power and a 5% type I error level, was determined to be 193 individuals; considering possible data loss, the study was completed with 200 individuals.

Individuals diagnosed with COPD by a physician, aged 65 years and older, clinically stable, who volunteered to participate and who completed the data collection process were included in the study. Individuals who could not communicate in Turkish, who were unsuitable for assessment because of a cognitive or clinical condition, or who could not complete the data collection process were excluded from the study.

Ethics committee approval for the study was obtained from the University of Health Sciences Türkiye, Antalya Training and Research Hospital (decision number: 8/14, date: 06.06.2024). The study was conducted in accordance with the principles of the Declaration of Helsinki, and written informed consent was obtained from all participants prior to participation.

Data Collection

All data were collected by the same researcher using a face-to-face interview method. The researcher read the survey and scale questions aloud to the participants and recorded their responses on the forms.. The data collection form included sociodemographic characteristics, dietary habits, anthropometric measurements, body composition analyses, and nutritional status assessment scales.

Anthropometric Measurements and Body Composition Analysis

Height was measured with a portable stadiometer. Body weight was measured with participants wearing light clothing and no shoes, using a digital scale with a sensitivity of 0.1 kg. Body mass index (BMI) was calculated by dividing body weight (kg) by the square of height (m). Waist and mid-upper arm circumferences were measured twice using a non-stretch tape measure, and the average of the two measurements was used in the analyses. Waist circumference was measured at the midpoint between the lower rib and the iliac crest. Mid-upper arm circumference was measured at the midpoint between the acromion and the olecranon process, with the arm hanging relaxed. Calf circumference was measured at its widest point while the participant was seated with the knee flexed at 90 degrees.

Body composition analysis was performed using the Tanita DC-360 ST multi-frequency bioelectrical impedance analysis (BIA) device. Measurements were conducted in the morning following an overnight fast and bladder voiding. Participants removed metal accessories and stood barefoot in light clothing, according to standard manufacturer protocols. Body fat percentage (%) and fat-free mass (kg) were recorded for analysis.

Assessment of Mediterranean Diet Adherence

Participants' level of adherence to the Mediterranean diet was assessed with the Mediterranean Diet Adherence Screener (16). Each item is scored as 0 or 1, yielding a total score ranging from 0 to 14. Higher scores indicate greater adherence. In addition to the continuous score, adherence was categorized based on established cut-off points: low adherence (0 to 5 points), moderate adherence (6 to 9 points), and high adherence (10 or more points). Because none of the participants scored 10 points or higher, comparisons were conducted between the low and moderate adherence groups.

Assessment of Appetite Status

Participants' appetite status was assessed using the Simplified Nutritional Appetite Questionnaire (SNAQ) (17). The scale consists of four items, and the total score ranges

from 4 to 20. A total score of ⩽14 indicates poor appetite and predicts a significant risk of unintentional weight loss within six months.

Assessment of Nutritional Status

The full 18-item MNA was used to assess the nutritional status of participants (18,19). The total score ranges from 0 to 30 points. Based on standard criteria, individuals with scores of 24 to 30 were classified as having normal nutritional status, those with scores of 17 to 23.5 as at risk of malnutrition, and those with scores less than 17 as malnourished.

Assessment of Sarcopenia Risk

Sarcopenia risk was assessed with the SARC-F scale (20,21). The scale consists of five items assessing loss of strength, walking ability, ability to rise from a chair, ability to climb stairs, and history of falls. A total score of 4 or above was accepted as indicating risk for sarcopenia.

Statistical Analysis

Data were analyzed using IBM SPSS Statistics version 23.0 (IBM Corp., Armonk, NY, USA) software. Continuous variables were presented as mean±standard deviation, and categorical variables as number and percentage. Conformity of the data to a normal distribution was assessed using the Kolmogorov-Smirnov and Shapiro-Wilk tests. An Independent Samples t-test was used to compare groups, and the chi-square test was used for categorical variables. Relationships between variables were examined using Pearson correlation analysis. The statistical significance level was set at $p < 0.05$.

Results

The sociodemographic characteristics of participants are presented in Table 1. The mean age of participants was 74.69 ± 6.03 years. Of the participants, 50.5% were female and 49.5% were male, with a mean duration of illness 4.65 ± 2.13 years. Approximately half of the participants (49.5%) were middle school graduates, and 96.0% were married. In addition, most individuals (84.0%) resided in urban areas. The most common comorbidity among participants was diabetes mellitus (28.0%), followed by diseases of the digestive system (13.0%) and hypertension (12.0%).

The mean MEDAS score of participants was 5.24 ± 1.05, and 61.5% of individuals were determined to have low adherence to the Mediterranean diet. According to the MNA assessment, 97.0% of participants were malnourished. The mean SNAQ score of individuals was 10.54 ± 2.12, and weight loss risk was found in 95.0% of participants. In addition, 99.0% of individuals had sarcopenia risk, the mean BMI was calculated as 31.6 ± 9.2 kg/m^2, and 45.5% of participants were determined to be obese (Table 2).

The anthropometric measurements and nutrition-related characteristics of participants, by Mediterranean diet adherence level, are presented in Table 3. Individuals with moderate adherence to the Mediterranean diet had higher body fat percentage (29.91 ± 11.69%) and MNA total score (13.53 ± 1.89) compared to the low adherence group; although BMI (30.59 ± 8.98 kg/m^2), waist circumference (97.12 ± 20.03 cm), calf circumference (34.47 ± 5.99 cm), fat-free mass (56.77 ± 17.73 kg), SNAQ total score (10.48 ± 2.08), and SARC-F total score (6.09 ± 1.17) were found to be lower, no statistically significant difference was found between the groups ($p > 0.05$).

Table 4 presents the correlations between Mediterranean diet adherence and nutritional status, appetite, sarcopenia risk, and BMI. A weak but significant negative relationship was found between Mediterranean diet adherence score and BMI ($r = -0.204$; $p = 0.004$). In contrast, no statistically significant relationship was found between the Mediterranean diet adherence score and the SNAQ total

Table 1. Sociodemographic characteristics of participants.

Variable	n (%)/mean ± SD
Age (years)	74.69 ± 6.03
Duration of illness (years)	4.65 ± 2.13
Sex	
Female	101 (50.5)
Male	99 (49.5)
Educational status	
Illiterate	25 (12.5)
Primary school	47 (23.5)
Middle school	99 (49.5)
High school	21 (10.5)
Vocational school/university	8 (4.0)
Marital status	
Married	192 (96.0)
Single	8 (4.0)
Place of residence	
Urban	168 (84.0)
Rural	32 (16.0)
Comorbidities	
Diabetes mellitus	56 (28.0)
Digestive system diseases	26 (13.0)
Hypertension	24 (12.0)
Musculoskeletal diseases	22 (11.0)
Cancer	13 (6.5)

SD, standard deviation.

score (r = -0.060), the SARC-F total score (r = -0.029), or the MNA total score (r = -0.021).

Discussion

In this study, malnutrition and poor appetite were highly prevalent among hospitalized older patients with COPD, with a substantial proportion at risk of weight loss and sarcopenia. Adherence to the Mediterranean diet was generally low, and a weak negative correlation was observed between adherence and BMI.

Malnutrition, considered one of the most common extrapulmonary complications of COPD, negatively affects prognosis. In COPD, nutritional status progressively deteriorates due to the combined effects of chronic systemic inflammation, increased resting energy expenditure, decreased appetite, reduced physical activity, and increased muscle protein breakdown, and this contributes to disease progression (2). Particularly among elderly patients, malnutrition is associated with sarcopenia, impaired immune function, decreased exercise capacity, increased frequency of hospitalization, and increased mortality. For this reason, current COPD guidelines and consensus reports recommend routine assessment of nutritional status as one of the fundamental components of disease management (1,5). In the literature, malnutrition is reported to affect approximately one-third (33.3%) of hospitalized COPD patients and one-fifth (20.0%) of outpatients (22). However, in a study conducted among outpatient-followed COPD patients in Vietnam, the prevalence of malnutrition was found to be as high as 75.0% (23). These findings show that malnutrition is a significant problem not only in hospitalized patients but also in COPD patients followed as outpatients. Nevertheless, the prevalence of malnutrition is reported to be higher among hospitalized COPD patients. The higher prevalence of malnutrition, particularly among hospitalized COPD patients, can be explained by the catabolic process resulting from the combined effects of systemic inflammation during acute exacerbation periods, increased energy requirements, decreased appetite, and inadequate food intake. In addition, the fact that individuals requiring hospitalization generally have more advanced disease severity and higher clinical burden also contributes to this high prevalence of malnutrition (24). When evaluating the high prevalence of malnutrition (97%) observed in this study, note that the MNA used is a multidimensional tool that assesses not only BMI but also recent decreases in food intake, unintentional weight loss, mobility, psychological stress/acute illness, and overall nutritional status. Therefore, it is not surprising that the prevalence of malnutrition according to the MNA was found to be high despite the relatively high mean BMI of participants (31.6 ± 9.2 kg/m^2). In addition, the sample consisted exclusively of elderly individuals hospitalized in the chest diseases department who were assessed after the acute clinical period, which may have contributed to the high prevalence observed. This finding indicates that a high BMI does not reflect adequate nutritional status in elderly COPD patients and that assessing malnutrition using anthropometric indicators alone may be insufficient.

Consistent with nutritional depletion, a high risk of sarcopenia was identified in our sample. Given that the mean BMI fell into the overweight and obesity categories, the coexistence of elevated BMI with high SARC-F scores points toward the potential presence of sarcopenic obesity (7,25). Because SARC-F is a screening instrument that evaluates functional performance rather than directly measuring muscle mass or strength, these findings should not be considered a formal diagnosis. Nonetheless, they emphasize the necessity of combining functional screening

Table 2. Nutritional status, appetite, sarcopenia risk, and Mediterranean diet adherence characteristics of participants.

Variable	n (%)/mean ± SD
Mediterranean diet adherence	
MEDAS total score	5.24 ± 1.05
Low adherence (0–5 points)	123 (61.5)
Moderate adherence (6–9 points)	77 (38.5)
Malnutrition (MNA)	
MNA total score	13.52 ± 1.87
Malnutrition	194 (97.0)
Risk of malnutrition	6 (3.0)
Appetite status (SNAQ)	
SNAQ total score	10.54 ± 2.12
Weight loss risk present	190 (95.0)
No risk	10 (5.0)
Sarcopenia risk (SARC-F)	
SARC-F total score	6.18 ± 1.21
Sarcopenia risk present	198 (99.0)
No sarcopenia risk	2 (1.0)
Body mass index	
BMI (kg/m^2)	31.6 ± 9.2
Underweight	18 (9.0)
Normal	53 (26.5)
Overweight	38 (19.0)
Obese	91 (45.5)

Data are presented as mean ± SD or n (%). MEDAS, Mediterranean diet adherence screener; MNA: mini nutritional assessment; SNAQ: simplified nutritional appetite questionnaire; SARC-F: sarcopenia screening tool; BMI: body mass index; SD, standard deviation.

tools with nutritional assessment rather than relying on BMI alone.

Appetite loss is another critical determinant of nutritional deterioration in hospitalized patients. In the present study, 95.0% of participants were classified as having poor appetite and an elevated risk for involuntary weight loss according to the SNAQ (score ⩽14). Although SNAQ does not replace multidimensional assessment tools like the MNA, its targeted evaluation of appetite provides valuable information for identifying early nutritional decline (26,27). Applying the SNAQ upon hospital admission may facilitate early detection of appetite loss and the prompt initiation of nutritional support during acute care.

Given the role of chronic inflammation and oxidative stress in COPD pathogenesis, the Mediterranean diet may contribute to COPD management. However, adherence to the Mediterranean diet was low in our cohort, with 61.5% falling into the low adherence category, consistent with previous reports in COPD populations (13,28,29). Mediterranean diet adherence was not significantly associated with MNA, SNAQ, or SARC-F scores. This lack of association likely reflects sample homogeneity, as almost all participants exhibited advanced nutritional risk and an acute clinical burden , which may overshadow the benefits of long-term dietary patterns. Furthermore, our sample exhibited a restricted variance in scores across these screening tools, with the vast majority of participants clustering in the high-risk categories (97% for malnutrition risk and 95% for appetite loss), which likely limited the statistical sensitivity to detect potential associations. However, a weak negative relationship was found between MEDAS scores and BMI, consistent with the recognized role of fiber rich, nutrient dense dietary patterns in body weight regulation (30). However, given the cross-sectional design and the weakness of this relationship, these findings reflect a statistical association rather than a causal effect on body weight regulation. Overall, these results suggest that while dietary patterns remain relevant for general weight management, acute hospitalization factors exert a dominant influence on immediate nutritional and functional status in older adults with COPD.

Study Limitations

This study has certain strengths. First, the study was conducted in a relatively large sample (n = 200) of elderly COPD patients hospitalized in the chest diseases department, which is one of its strengths. In addition, all

Table 3. Comparison of anthropometric and nutrition-related characteristics of participants according to Mediterranean diet adherence level.

Variable	Low adherence (n=123) mean ± SD	Moderate adherence (n=77) mean ± SD	t	p
Anthropometric measurements and body composition				
Body fat percentage (%)	29.46 ± 12.40	29.91 ± 11.69	-0.255	0.799
Fat-free mass (kg)	59.76 ± 18.24	56.77 ± 17.73	1.141	0.255
Mid-upper arm circumference (cm)	32.18 ± 10.44	32.04 ± 11.01	0.090	0.928
Calf circumference (cm)	35.10 ± 5.71	34.47 ± 5.99	0.736	0.462
Waist circumference (cm)	99.72 ± 23.31	97.12 ± 20.03	0.807	0.420
BMI (kg/m^2)	32.28 ± 9.46	30.59 ± 8.98	1.250	0.213
Nutritional status and appetite				
SNAQ total score	10.58 ± 2.16	10.48 ± 2.08	0.313	0.755
MNA total score	13.51 ± 1.86	13.53 ± 1.89	-0.090	0.929
SARC-F total score	6.23 ± 1.24	6.09 ± 1.17	0.775	0.439

Data are presented as mean ± SD. Independent Samples t-test was used for comparisons. BMI, body mass index; MNA: mini nutritional assessment; SARC-F: sarcopenia screening tool; SNAQ: simplified nutritional appetite questionnaire; SD, standard deviation.

Table 4. Correlations between Mediterranean diet adherence and nutritional status, appetite, sarcopenia risk, and body mass index.

Variable	r	p
Body mass index	-0.204	0.004*
SNAQ total score	-0.060	0.402
SARC-F total score	-0.029	0.688
MNA total score	-0.021	0.763

*Pearson correlation test, p < 0.05. MNA: mini nutritional assessment; SARC-F: sarcopenia screening tool; SNAQ: simplified nutritional appetite questionnaire.

assessments were performed by the same researcher using standard methods, minimizing measurement variability. The fact that Mediterranean diet adherence, malnutrition, appetite status, and sarcopenia risk were assessed together using validated multidimensional screening tools such as MEDAS, MNA, SNAQ, and SARC-F is also an important strength of the study.

However, several limitations must be acknowledged. First, the cross-sectional design precludes any conclusions regarding causal relationships. Second, the study was conducted at a single center and lacked a healthy control group, which limits the generalizability of the findings to broader outpatient or community-dwelling COPD populations. Third, detailed disease severity metrics, such as GOLD stages and pulmonary function test parameters, were not recorded, limiting deeper analyses of respiratory impairment. Fourth, dietary intake was not assessed via food consumption records, and quantitative energy and protein intake could not be calculated; adherence relied solely on the self-reported MEDAS tool, which may be subject to recall bias. Fifth, BIA in acutely ill, hospitalized patients may be influenced by subclinical alterations in hydration status. Sixth, the SARC-F scale is a screening instrument rather than a diagnostic test, and therefore definitive diagnoses of sarcopenia or sarcopenic obesity cannot be established. The relationships between dietary adherence and anthropometric variables were assessed without adjustment for key confounding factors, such as comorbidities and disease duration.

Conclusion

The primary clinical finding of this study is the remarkably high prevalence of nutritional depletion, appetite-related weight-loss risk, and sarcopenia risk among hospitalized older patients with COPD, despite a high mean BMI falling into the overweight and obesity categories. Adherence to the Mediterranean diet was generally low and showed a weak inverse correlation with BMI, but was not significantly associated with malnutrition, appetite, or sarcopenia risk. These findings demonstrate that an elevated BMI does not reflect nutritional adequacy or preserved functional status in acute clinical settings. Consequently, routine screening using multidimensional tools such as the MNA, SNAQ, and SARC-F is essential at hospital admission, and older COPD patients identified as being at nutritional risk should be promptly referred for comprehensive assessment and tailored nutritional care.

Ethics

Ethics Committee Approval: Ethics committee approval for the study was obtained from the University of Health Sciences Türkiye, Antalya Training and Research Hospital (decision number: 8/14, date: 06.06.2024).

Informed Consent: The written informed consent was obtained from all participants prior to participation.

Footnotes

Authorship Contributions

Concept: O.K., N.S.K., M.Ş.K.E., Design: O.K., C.Ö., N.Ş.D., F.K., N.S.K., M.Ş.K.E., Data Collection or Processing: O.K., N.Ş.D., F.K., Analysis or Interpretation: C.Ö., N.S. K., Literature Search: O.K., C.Ö., Writing: O.K., C.Ö., N.S.K., M.Ş.K.E.

Conflict of Interest: No conflict of interest was declared by the authors.

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