ID:3179 Assessment Of The Need For Multimodal Care For Cachexia Among Patients With Advanced Cancer Receiving Palliative Care: A Multicenter Survey in Japan

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Intoduction

✓ When we consider cancer cachexia, we tend to associate it primarily with physical issues, such as lack of appetite, reduced dietary intake, muscle loss, and impaired physical function [1-4].

✓ However, the impact of psychological symptoms and emotional distress is also significant in actual patients with cancer cachexia. Therefore, multidisciplinary, multifaceted care—that is, holistic multimodal care—is necessary. However, to date, there are no scales to assess the need for holistic multimodal care in this population [5-6].

✓ Based on the findings of our previous research, we have preliminarily developed a scale to assess the need for holistic multimodal care.

Aim

The aim of this study is to examine the relationship between the newly developed scale and existing scales, which can assess physical symptoms and psychological issues.

Methods

✓ This study comprised a secondary analysis of a survey using a self-reported questionnaire.

✓ The original survey was conducted in palliative care teams and/or units at six designated cancer hospitals in Japan between November 2023 and June 2024. All consecutive patients meeting the eligibility criteria were enrolled.

✓ The following inclusion criteria were specified: patients who were 1) referred to palliative care for the first time, 2) 18 years or older, 3) diagnosed with advanced incurable cancer or hematologic neoplasms, 4) aware that they had been diagnosed with cancer, and 5) able to complete a self-reported questionnaire written in Japanese.

✓ The following exclusion criteria were employed: patients who were 1) forbidden to eat orally by their attending physicians, 2) too distressed to participate in the survey (as determined through an interview with the palliative care physician), or 3) unwilling to participate.

Refferences

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Results

Table 1. Patient characteristics

	Group with low need for multimodal care (n = 82)	Group with high need for multimodal care (n = 88)	p-value
Age (years)	64.5 (51.0–74.0)	66.0 (55.3–75.8)	0.675
Sex			
Female	43 (52.4)	42 (47.7)	0.645
Male	39 (47.6)	46 (52.3)	
Primary cancer site			
Esophagus and stomach	6 (7.3)	2 (2.3)	0.235
Colon and rectum	5 (6.1)	8 (9.1)	
The liver, biliary system, and pancreas	12 (14.6)	18 (20.5)	
Lung	23 (28)	11 (12.5)	
Breast	6 (7.3)	4 (4.5)	
Gynecologic	9 (11.0)	13 (14.8)	
Urological	5 (6.1)	8 (9.1)	
Head and neck	3 (3.7)	6 (6.8)	
Hematological	4 (4.9)	7 (8.0)	
Other	9 (11.0)	11 (12.5)	
ECOG PS			
0	1 (1.2)	1 (1.1)	0.654
1	17 (20.7)	17 (19.3)	
2	25 (30.5)	35 (39.8)	
3	33 (40.2)	32 (36.4)	
4	6 (7.3)	3 (3.4)	
Treatment status			
Pre-chemotherapy	6 (7.3)	14 (15.9)	0.228
Chemotherapy	61 (74.4)	61 (69.3)	
Never treated/previous treatment	15 (18.3)	13 (14.8)	
Body mass index (kg/m^2)	20.3 (18.6–23.9)	20.9 (18.7–24.2)	0.467
Weight loss rate over 6 months (%)	6.0 (1.5–10.3)	6.1 (1.2–13.0)	0.611
Cachexia/refractory cachexia, yes	55 (67.1)	53 (60.2)	0.426
Pleural effusion, ascites, or edema affecting weight, yes	16 (19.8)	20 (23.3)	0.707
Serum albumin levels (g/dL)	3.3 (2.8–3.7)	3.1 (2.6–3.6)	0.375
Serum C-reactive protein levels (mg/dL)	2.1 (0.2–7.0)	3.3 (0.7–7.9)	0.130

Values represent n (%) or median (interquartile range). ECOG PS, Eastern Cooperative Oncology Group performance status.

Table 2. Symptoms, dietary intake, and need for multimodal care in cancer cachexia

	Group with low need for multimodal care	Group with high need for multimodal care	p-value
Symptoms			
Oral pain	0.0 (0.0–0.0)	0.0 (0.0–1.0)	0.580
Pain	2.0 (0.0–6.0)	4.0 (0.0–7.0)	0.219
Shortness of breath	2.0 (0.0–3.5)	1.0 (0.0–4.0)	0.175
Fatigue	3.0 (2.0–5.0)	4.0 (1.5–6.0)	0.177
Drowsiness	3.0 (1.0–5.0)	4.0 (2.0–6.0)	0.048
Lack of appetite	5.0 (2.0–7.0)	5.0 (1.0–7.0)	0.441
Early satiety	4.0 (2.0–5.5)	5.0 (2.5–7.5)	0.017
Nausea	1.0 (0.0–3.0)	1.0 (0.0–6.0)	0.058
Vomiting	0.0 (0.0–1.0)	0.0 (0.0–1.5)	0.285
Constipation	3.0 (0.5–7.0)	4.0 (0.0–7.0)	0.740
Diarrhea	1.0 (0.0–3.0)	0.0 (0.0–3.0)	0.934
Abnormal taste	0.0 (0.0–4.0)	1.0 (0.0–5.0)	0.179
Abnormal smell	0.0 (0.0–1.0)	0.0 (0.0–2.0)	0.430
Dry mouth	1.0 (0.0–2.5)	3.0 (0.0–7.0)	0.004
Dental problems	0.0 (0.0–2.0)	0.0 (0.0–2.5)	0.738
Difficulty swallowing	0.0 (0.0–1.5)	0.0 (0.0–2.0)	0.437
Food bolus obstruction	0.0 (0.0–0.0)	0.0 (0.0–2.5)	0.785
Anxiety	2.0 (0.0–5.0)	3.0 (1.0–5.0)	0.011
Feeling sad	2.0 (0.5–4.0)	3.0 (2.0–6.0)	< 0.001
Dietary intake			
Dietary intake score	5.0 (3.0–7.0)	4.5 (3.0–7.0)	0.311
Number of patients with a dietary intake score of 7 or less	67 (81.7)	76 (86.4)	0.529

Values represent n (%) or median (interquartile range). Symptoms were rated between 0 and 10; high scores indicate worse symptoms. Dietary intakes were assessed using the Ingesta-Verbal/Visual Analog Scale (10-point scale); high scores indicate better dietary intake.

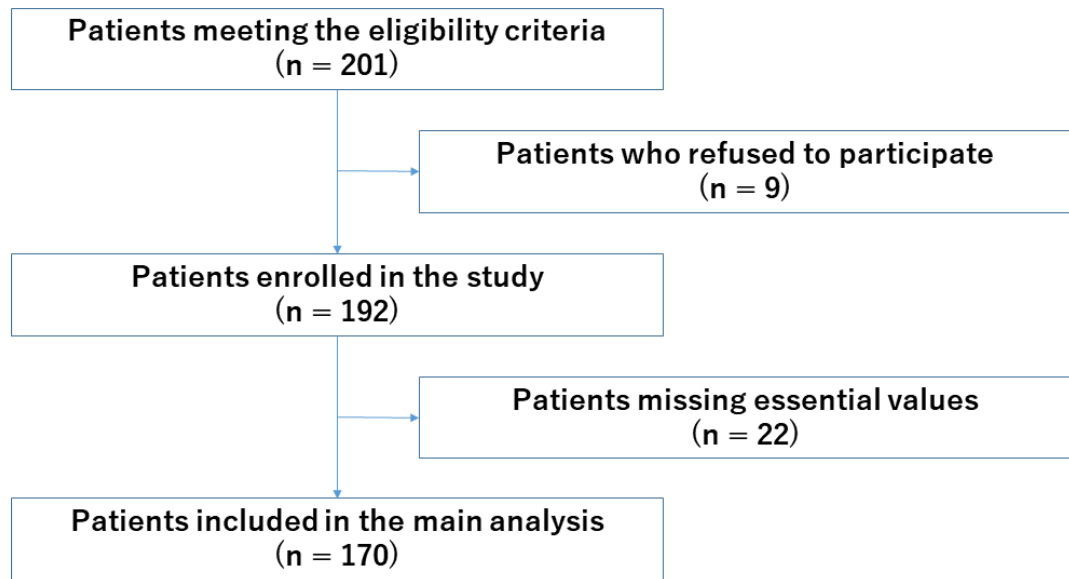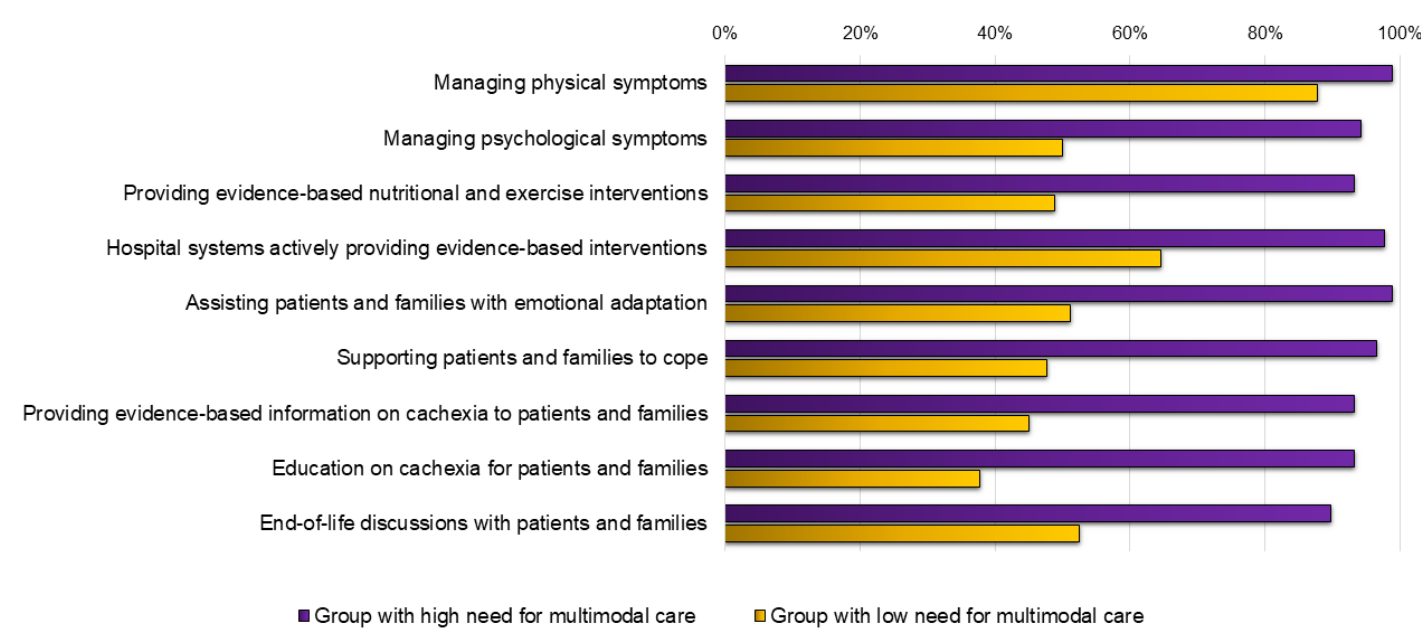Figure 1. Flow diagram of the patient selection process in this study.

Patients meeting the eligibility criteria (n = 201)
→ Patients who refused to participate (n = 9)
Patients enrolled in the study (n = 192)
→ Patients missing essential values (n = 22)
Patients included in the main analysis (n = 170)

Table 3. Anxiety, depression, distress, and need for multimodal care in cancer cachexia

	Group with low need for multimodal care	Group with high need for multimodal care	p-value
Hospital Anxiety and Depression Scale			
Anxiety	6.0 (4.0–9.5)	8.0 (6.0–11.0)	0.007
Patients with an Anxiety score of 11 or more	12 (15.8)	25 (29.4)	0.060
Patients with an Anxiety score of 8 or more	31 (40.8)	53 (62.4)	0.007
Depression	9.0 (5.0–12.0)	9.0 (6.0–12.0)	0.634
Patients with a Depression score of 11 or more	25 (33.8)	34 (40.0)	0.511
Patients with a Depression score of 8 or more	49 (66.2)	55 (64.7)	0.869
Distress and Impact Thermometers			
Distress Thermometer	5.3 (3.0–8.0)	7.5 (5.0–8.0)	0.001
Patients with a Distress Thermometer score of 4 or more	52 (66.7)	75 (89.3)	< 0.001
Impact Thermometer	5.0 (2.0–8.0)	7.0 (4.0–8.0)	0.015
Patients with an Impact Thermometer score of 3 or more	55 (70.5)	74 (88.1)	0.006

Values represent n (%) or median (interquartile range). Anxiety and depression were assessed using the Hospital Anxiety and Depression Scale (4-point scale); high scores indicate worse anxiety and depression. Emotional distress and its interference with daily life were rated between 0 and 10 using the Distress and Impact Thermometers; high scores indicate worse distress and impact.

Figure 2. Needs for components of multimodal care for people affected by cancer cachexia

Managing physical symptoms
Managing psychological symptoms
Providing evidence-based nutritional and exercise interventions
Hospital systems actively providing evidence-based interventions
Assisting patients and families with emotional adaptation
Supporting patients and families to cope
Providing evidence-based information on cachexia to patients and families
Education on cachexia for patients and families
End-of-life discussions with patients and families

■ Group with high need for multimodal care   ■ Group with low need for multimodal care

Table 4. Factors associated with the need for multimodal care in cancer cachexia

Independent variable	Adjusted OR	95% CI	p-value
Number of nutrition impact symptoms of moderate or more severe (ref, < 4)			
≥ 4	2.24	1.09–4.60	0.029
Hospital Anxiety and Depression Scale-Anxiety (ref, < 8)			
≥ 8	2.42	1.22–4.79	0.011
Distress thermometer (ref, < 4)			
≥ 4	6.10	2.36–15.76	< 0.001
Impact thermometer (ref, < 3)			
≥ 3	3.87	1.57–9.50	0.003

Age (< and ≥ 65 years), sex (female and male), primary cancer site (lung, gastrointestinal tract, and other), ECOG PS (0/1, 2, and 3/4), treatment status (pre-chemotherapy/never treated/previous treatment and chemotherapy), and serum CRP level (< and ≥ 5 mg/dL) were included in the multivariate analysis. ECOG PS, Eastern Cooperative Oncology Group performance status; CRP, C-reactive protein; OR, odds ratio; CI, confidence interval.

Discussion and Limitation

✓ The need for multimodal care for cachexia, as perceived by patients with advanced cancer referred to palliative care, was associated with their NISs, anxiety, and distress. Assessment of the nine components of multimodal care in cancer cachexia can be a good indicator for initiating holistic, multimodal interventions in palliative care settings.

✓ This survey was conducted in just one East Asian country, and only inpatients were targeted. Therefore, the findings of this study cannot be generalized, and differences between cultures or ethnic groups should be considered.

✓ Further research is needed to validate the present findings and clarify their relevance in clinical oncology practice in other countries and cultures.

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