

and chemotherapy) were retained for further adjustment. Univariate and multivariate Cox proportional hazards regression models were used to determine the relationships between the investigated variables and survival. Biomedical and psychosocial variables that proved significant in the univariate analysis were simultaneously entered into the multivariate Cox regression, while PS and disease stage were compulsorily entered into the multivariate analysis regardless of the results of the univariate analysis. To explore the stability of the investigated psychosocial factors, except for the presence of the psychiatric diagnosis assessed by the psychiatric diagnostic interview, Pearson correlation coefficients or the concordance rate between T1 and T2 were investigated. A *P* value of less than 0.05 was adopted as the significance level in all of the statistical analyses, and all reported *P* values were two-tailed. All statistical procedures were conducted using the SPSS 10.0J version software for Windows (SPSS Inc., 2003).

Results

Characteristics of the participants

During the study entry period, 230 cases of unresectable NSCLC were newly diagnosed; 79 patients were found to be ineligible for enrollment in the study (brain metastasis, *n* = 44; illness too severe, *n* = 16; cognitive impairment, *n* = 8; active concomitant cancer, *n* = 4; not informed of the diagnosis, *n* = 3; PS of 3 or 4, *n* = 3; illiteracy, *n* = 1). Among the remaining 151 eligible patients, 21 patients refused to participate in the study and 8 patients could not be contacted; thus, 122 patients ultimately participated. No significant differences in age, sex, marital status, employment, histology, or clinical stage were observed between the participants (*n* = 122) and the non-participants (*n* = 21); however, the non-participants had significantly lower PSs than the participants (*P* = 0.005).

The patient characteristics are shown in Table 1. About half of the subjects were diagnosed as having stage IV lung cancer, and the overall median survival period was approximately 8.5 months. A total of six patients suffered from major depression. After a 2-year follow-up period, 108 patients had died. The survival data were censored for the remaining 14 patients.

A comparison of the survival of patients with various biomedical and psychosocial factors using a univariate analysis is shown in Table 2. Among the psychosocial factors, none of the investigated factors, including coping with cancer, psychological distress, psychiatric disorders, and social support, were significantly associated with

Table 1. Patient characteristics (*n* = 122)

		No (%)
Age (years)	Mean ± SD	62 ± 9
	Median (range)	64.5 (40–82)
Sex	Male	90 (74)
	Married	107 (88)
Marital status	< 10 y	62 (51)
Education	Full-time	34 (28)
	Part-time	5 (4)
Employment status	Housewife	15 (12)
	Retired	40 (33)
	Others	28 (23)
	Living alone	8 (7)
Household size	Mean ± SD	34.3 ± 33.3
	Median	27
Profile of Mood States (Total Mood Disturbance)	0	12 (10)
	1	104 (85)
	2	6 (5)
Performance Status ^a	Adenocarcinoma	81 (64)
	Squamous cell	31 (25)
	Large cell	9 (7)
	Adenosquamous	1 (1)
Histology	III A	4 (3)
	III B	59 (48)
	IV	59 (48)
Disease stage	Mean	11
	Median	8.6
	25 percentile	5.4
	75 percentile	15.2
Survival (months)		

^aAs defined by the Eastern Cooperative Oncology Group criteria.

Table 2. Comparison of the survival of patients with various biomedical and psychosocial factors—univariate Cox proportional regression analyses

Variable	Coefficient	SE	Hazards ratio (95% CI)	<i>P</i>
Performance Status ^a	0.49	0.31	1.63 (0.89–2.99)	0.11
Disease stage	0.36	0.19	1.43 (0.99–2.07)	0.06
Histology (squamous cell)	0.34	0.22	1.40 (0.91–2.16)	0.13
Hemoglobin (g/dl)	−0.09	0.05	0.92 (0.83–1.02)	0.11
Serum LDH (IU/l)	0.001	0.000	1.001 (1.000–1.001)	0.001
Treatment (CTX)	−0.50	0.23	0.61 (0.39–0.96)	0.03
Fighting spirit ^b	0.02	0.02	1.02 (0.99–1.05)	0.16
Total Mood Disturbance ^c	0.002	0.003	1.002 (0.996–1.01)	0.53
Major depression	−0.23	0.46	0.79 (0.32–1.95)	0.61
Number of confidants	−0.01	0.02	0.99 (0.96–1.03)	0.71
Satisfied with confidant	−0.01	0.08	0.99 (0.84–1.16)	0.87

Psychosocial factors were assessed at after diagnosis but before treatment.

CI: confidence interval; LDH: lactate dehydrogenase; CTX: chemotherapy.

^aAs defined by the Eastern Cooperative Oncology Group criteria.

^bMental Adjustment Cancer Scale.

^cProfile of mood states.

the survival period. Among the biomedical factors, a higher serum LDH level and not receiving chemotherapy were significantly associated with shorter survival periods.

Table 3. Multivariate Cox proportional regression analysis

Variable	Coefficient	SE	Hazards ratio (95% CI)	P
Performance Status ^a	0.30	0.31	1.35 (0.74–2.48)	0.33
Disease stage	0.41	0.19	1.50 (1.03–2.19)	0.04
Serum LDH (IU/L)	0.001	0.000	1.001 (1.000–1.001)	0.001
Treatment (CTx)	-0.54	0.24	0.59 (0.37–0.93)	0.03

CI: confidence interval; LDH: lactate dehydrogenase; CTx: chemotherapy.

^aAs defined by the Eastern Cooperative Oncology Group criteria.

A multivariate Cox proportional regression analysis indicated that an advanced clinical stage, a higher serum LDH level, and not receiving chemotherapy were independently associated with a shorter survival period among patients with inoperable NSCLC (Table 3). In addition, we preliminarily conducted a stepwise Cox regression analysis (backward elimination), including the aforementioned five psychosocial factors and six biomedical factors. The findings also indicated that advanced disease stage, a high LDH level, and no chemotherapy were significantly associated with a shorter survival period (data not shown).

Regarding the stability of the psychosocial factors, our findings demonstrated that the correlation coefficients of the fighting spirit subscale of the MAC, the TMD of the POMS, the number of confidants, and the satisfaction with the confidants between T1 and T2 were 0.65 ($P < 0.001$), 0.54 ($P < 0.001$), 0.45 ($P < 0.001$), and 0.18 ($P = 0.06$), respectively. These findings suggested a moderate to high stability of most of the psychosocial factors other than the perceived satisfaction with social support.

Discussion

This is the first prospective cohort study to clarify the association between a broad range of psychosocial factors and survival among homogenous patients with advanced NSCLC. The present study has several advantages. First, we assessed most of the well-established biomedical prognostic factors, although the final analysis did not need to adjust for these factors. Second, we first investigated clinical depression using the most reliable method available (a structured clinical interview conducted by a trained psychiatrist). Third, we ascertained the stability of the psychosocial factors subsequent to the cancer diagnosis.

Our results demonstrated that psychosocial factors, including coping with cancer, psychological distress, clinical depression, and social support, are not significantly associated with survival time among inoperable patients with NSCLC. Overall, the findings that a specific coping style, 'fighting spirit', and clinical depression

had no significant effect on survival in advanced lung cancer patients should be emphasized because it is commonly believed that a patient's coping with cancer and negative emotions, especially depression, can affect his or her chances of surviving cancer. In addition, because our study confirmed the moderate to high stability of several of the psychosocial factors, we found little convincing evidence that a weak 'fighting spirit' or negative emotions after cancer diagnosis played a clinically relevant role in survival from cancer, even when these findings were stable over relatively long periods of time. Furthermore, our study demonstrates that social support factors do not have an important influence on survival time among advanced lung cancer patients. These findings are consistent with some previous studies and our findings suggest that advanced lung cancer patients need not feel pressured into adopting a specific coping style to cancer or blame themselves for having 'negative emotions and/or depression' after their cancer diagnosis that might affect their survival [37,38]. The present findings may be relevant because the psychological distress experienced by lung cancer patients has been repeatedly reported to be higher than in other cancer patients (see Introduction). Furthermore, this study provides the first findings about clinically diagnosed depression, namely major depression, after a diagnosis of inoperable lung cancer and the subsequent survival time. Although many previous studies have demonstrated a significant association between depression and survival among cancer patients [28,39,40] and patients with other diseases, especially cardiovascular patients [41,42], the current findings are not consistent with the previous findings. This may be partly due to the differences in the subjects and the relatively small sample size (e.g. only six patients suffered from major depression). Further, large studies may be needed to obtain more conclusive findings between clinical depression and survival among lung cancer patients.

Finally, we would like to mention a possible effect of Japanese culture on the findings obtained. In Japan, a diagnosis of cancer is still often considered to be the equivalent of a death sentence, and the disclosure of a cancer diagnosis is not universally practiced [43]. Although the institution at which the present study was conducted is exceptional in that a cancer diagnosis is usually disclosed to the patient, cultural differences in patient-physician communication and the social meaning of a cancer diagnosis may have influenced the psychosocial factors that were investigated and be consequently may be somewhat associated with the present findings. In addition, previous Japanese studies have consistently indicated a somewhat lower prevalence of major depression, ranging between 4 and 7%, among cancer patients,

compared with findings from Western countries [12,44–46]. Thus, the low prevalence of major depression is unlikely to represent a sampling bias, but rather cultural differences—as discussed in our previous study [12,46].

We would like to emphasize that our findings do not imply that dealing with psychosocial issues among cancer patients in clinical oncology setting is unimportant. As many studies have indicated, psychosocial issues not only cause serious suffering [47], but also worsen the quality of life [48], reduces compliance with anticancer treatment [49], can lead to suicide [50], are a psychological burden on the family [51], and prolongs hospitalization [52].

Although it was not the principal purpose of our study, we would like to note that our findings suggest that the serum LDH level could be a useful independent biomedical prognostic factor of the length of survival among patients with advanced NSCLC. LDH is an enzyme that is released into the peripheral blood after cell death. Therefore, the serum LDH level may represent biomedical conditions associated with the length of survival among patients with advanced NSCLC. A rigorous psycho-oncological study investigating the influence of psychosocial factors on survival may be needed to evaluate these biomedical factors as well as psychosocial factors.

Our study also has some weaknesses. First, since only 53.0% (122/230) of the subjects could be included in the analysis, generalizing the results may be problematic, and the sample size of the follow-up group was not very large. Second, the fact that the patients who participated in the study were more likely to have a better PS than those who did not indicate a potential selection bias. Third, as mentioned above, because the number of cases with clinical depression was quite small, the validity of our findings regarding the association between clinical depression and survival may be limited. To overcome these limitations, we are conducting a large-scale cohort study involving more than 2000 subjects to investigate psychosocial factors and survival among lung cancer patients [53]. Since the present study was conducted at one institution, an institutional bias may be another problem. Because current smoking at the time of lung cancer diagnosis could be an independent predictor of survival and a close association between smoking and emotional distress has been documented [54,55], the lack of data on continuous tobacco use after cancer diagnosis and its relationship with emotional distress and survival may be an additional limitation. Finally, because this study focused on advanced NSCLC cancer patients, the results may not be applicable to patients with other types and/or clinical stages of cancer.

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Symptom indicator of severity of depression in cancer patients: a comparison of the *DSM-IV* criteria with alternative diagnostic criteria

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Abstract

Objective: The objective of this study was to explore the performances of several diagnostic criteria items for judging the severity of major depression among cancer patients.

Method: Using modern item response theory, we examined the performances of the diagnostic criteria outlined by the *DSM-IV* and two sets of conceptual diagnostic criteria (the Endicott and the Cavanaugh criteria) in a series of 728 cancer patients who had been diagnosed with major depression using an inclusive approach.

Results: While all the *DSM-IV* diagnostic criteria, including feelings of worthlessness and suicidal ideation, had a low ability for discriminating the severity of depression, two proposed items (not participating in medical care and social withdrawal) appeared to be good markers of moderately severe major depressive disorder among cancer patients. In addition, the items “fearfulness or depressed appearance in face or body posture” and “brooding, self-pity or pessimism” may be good markers for mild major depressive disorders, while the item “cannot be cheered up, doesn’t smile, no response to good news or funny situations” may be a good marker for severe major depressive disorder.

Conclusions: The findings of the present study suggest that alternative criteria may have utility in diagnosing depression severity in cancer patients.

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Keywords: Cancer; Depression; Severity; Diagnosing; Antidepressant

1. Introduction

Major depression is among the most widely recognized psychiatric disorders in cancer patients [1]. It not only produces serious suffering [2] but also worsens quality of life

[3], reduces adherence to anticancer treatments [4], can lead to suicide [5], is a psychological burden on the family [6] and prolongs hospitalization [7]. Thus, early detection and appropriate management of major depression in cancer patients are crucial. On the other hand, there are several issues surrounding the appropriate assessment of major depression in cancer patients.

First, diagnosing major depression in cancer patients itself has been challenging because the diagnostic criteria for major depression, as established in the *DSM-IV*, include a number of signs and “somatic symptoms” that frequently are

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Table 1
Suggested criteria for diagnosing major depression in medical patients

	<i>DSM-IV</i> (etiologic approach)	Modified <i>DSM-IV</i> (inclusive approach)	Cavanaugh criteria (exclusive approach)	Endicott criteria (substitutive approach)
Common parts	1. Dysphoric mood 2. Loss of interest or pleasure 3. Psychomotor agitation or retardation 4. Feelings of worthlessness, self-reproach or excessive or inappropriate guilt 5. Recurrent thoughts of death, suicidal ideation, wishes to be dead or suicidal attempt			
Suggested parts	6. Diminished ability to think or concentrate or indecisiveness 7. Weight loss or gain or a decrease in appetite 8. Insomnia or hypersomnia 9. Fatigue or loss of energy	Same as the left	6. Diminished ability to think or concentrate or indecisiveness 7. Not participating in medical care in spite of ability to do so, not progressing despite improving medical condition and/or in functioning at a lower level than the medical condition warrants	• 6. Fearfulness or depressed appearance in face or body posture 7. Social withdrawal or decreased talkativeness 8. Brooding, self-pity or pessimism 9. Cannot be cheered up, doesn't smile, no response to good news or funny situations
Concept	Symptoms that are clearly and fully attributable to the general medical condition are excluded	Symptoms are counted regardless whether or not they might be attributable to cancer	Somatic symptoms are deleted from the diagnostic criteria	If the medical condition is likely to affect the specific symptoms (appetite/weight change, sleep, loss of energy/fatigue, diminished ability to think/concentrate), use the substitute symptoms

often attributable to the cancer itself and/or to anticancer treatments like chemotherapy and radiotherapy (e.g., appetite loss, weight loss, insomnia, fatigue, loss of energy and diminished ability to think or concentrate) [1]. Although the original *DSM-IV* diagnostic criteria exclude symptoms that are clearly and fully attributable to the general medical condition (etiologic approach), a differential diagnosis is often difficult or even impossible [8]. Some investigators, including our group, have attempted to assess the usefulness of several biological markers for diagnosing major depression in cancer patients, including measures of the hypothalamic–pituitary–adrenal axis (dexamethasone suppression test) [9], cortisol [10], the hypothalamic–pituitary–thyroid axis (TRH stimulation test) [9,11], serotonin-induced platelet calcium mobilization [12], IL-6 [10,13], and omega-3 fatty acid [14]; brain morphological differences in the hippocampus [15], amygdala [16] and prefrontal cortex [16]; and cerebral glucose metabolism [17]. However, none of these markers have proved to be definitive. Several alternative approaches have been proposed to resolve this diagnostic issue (Table 1) [18]; these approaches include inclusive (symptoms are counted whether or not they might be attributable to cancer) [19], substitutive [non-somatic symptoms are substituted with somatic symptoms (e.g., Endicott criteria) [20]] and exclusive [somatic symptoms are deleted from the diagnostic criteria (e.g., Cavanaugh criteria) [21]] approaches as well as an increased threshold approach (applying high symptom-severity thresholds for somatic symptoms) [22]. In addition, our previous study suggested that individual somatic symptoms differ in nature and that appetite-related symptoms and a diminished ability to think may be useful for diagnosing depression in cancer patients,

whereas sleep disturbances and fatigue may not (modified inclusive approach) [23]. Another previous study suggested the usefulness of somatic symptoms when applying the *DSM-IV* depression criteria to physically ill patients, including those with diabetes, ischemic heart disease and chronic obstructive lung disease [24]. Although the inclusive approach is generally recommended for diagnosing major depression in physically ill patients (especially in a clinical setting), to avoid underestimating depression [18,25], this approach may lead to false-positive diagnoses of depression [26]. Thus, standard methods for the diagnosis of major depression are needed but have not yet been established [8,18,27,28].

Second is an issue regarding the assessment of depression severity, which is determined by considering the number and intensity of symptoms, including both non-somatic and somatic symptoms. As diagnosing depression in cancer patients is difficult, determining the severity of depression is also difficult. Regarding treatments for clinical depression in cancer patients, previous studies have demonstrated the effectiveness of antidepressants for major depression [29,30]. On the other hand, these studies failed to show the effectiveness of antidepressants in cancer patients with milder depression, including those with adjustment disorders [31,32]. These findings suggest that only cancer patients with severe depression benefit from antidepressant treatment [33]. In general psychiatric settings as well, antidepressants usually become a principal treatment when major depression is severe [34]. Thus, the severity of major depression should be a relevant indicator for treatment implementation in cancer patients, and assessment of the overall severity of depression is relevant

for selecting appropriate treatments, especially the administration of antidepressants.

Some previous studies investigated symptoms as indicators of severe depression and/or major depression in cancer patients and found that feelings of worthlessness and suicidal ideation were good indicators of severe depression [2,35]. However, our clinical experience and some previous studies suggest that these symptoms are not rare and not specific to depression in cancer patients [36,37]. Thus, understanding symptom indicators for severe depression would be helpful in clinical practice, especially when considering whether to administer antidepressants.

The objective of this study was to use modern item response theory (IRT) to explore the performances of the diagnostic criteria items for major depression as outlined by the *DSM-IV* and two previously proposed diagnostic criteria (the Endicott and the Cavanaugh criteria) for judging the severity of major depression among physically ill/cancer patients.

2. Materials and methods

All psychiatric consultations referred to the Psychiatry Division, National Cancer Center Hospital and Hospital East, Japan, between 1996 and 2003 were reviewed. A computerized database was used to identify cancer patients with major depression using the results of a structured clinical interview based on the *DSM-IV* criteria by trained psychiatrists. During this study period, a total of seven psychiatrists, including four faculty and three residents, interviewed the patients. The resident psychiatrists were provided with continuous education about diagnosis of depression among cancer patients by faculty psychiatrists. The database included demographic factors, medical factors such as performance status and pain and psychiatric diagnoses based on the *DSM-IV* criteria (with major depression diagnosed using the inclusive approach). Performance status, as defined by the Eastern Cooperative Oncology Group criteria, is an objective index of a patient's physical functioning, ranging from 0 (*no symptoms*) to 4 (*bedridden*). To assess pain, the psychiatrists directly asked the patients about their pain at the time of the first interview; each patient's pain was then categorized as "not at all", "a little", "tolerable" or "intolerable". In addition, one item proposed by Cavanaugh (not participating in medical care in spite of ability to do so, not progressing despite improving medical condition and/or in functioning at a lower level than the medical condition warrants) [21] and four items proposed by Endicott (fearfulness or depressed appearance in face or body posture; social withdrawal or decreased talkativeness; brooding, self-pity or pessimism; cannot be cheered up, doesn't smile, no response to good news or funny situations) [20] (Table 1) were also evaluated in cases diagnosed with major depression; these items were also included in the database. Because no precise definition and/or assessment guidelines for these symptoms exist, the psychiatrists

carefully judged each symptom from a clinical perspective; in many cases, several items of information were gathered from the medical staff and the patients' family members to evaluate these symptoms as accurately as possible. When a criterion was assessed as absent or subthreshold, it was entered as absent (rated as 0) in the database; when assessed as present, it was entered as such (rated as 1). Only data from patients diagnosed as having major depression for whom complete information for each diagnostic item in both the Cavanaugh and the Endicott criteria was available were extracted from the database and analyzed in the current study.

Patient sheets completed by the psychiatrists were automatically read using a mark sheet reader and were stored in the database. Then, an anonymous data set that could not be linked to the patient's charts was produced in March 2004. Since this was a retrospective study using an anonymous data set obtained during routine clinical practice and that could not be used to identify individuals, informed consent and institutional review board approval were not required according to the ethics guideline for epidemiological studies developed by the Japanese Ministry of Labor, Health and Welfare (<http://www.mhlw.go.jp/general/seido/kousei/i-kenkyu/ekigaku/0504sisin.html>).

2.1. Statistical analysis

As mentioned above, we used IRT analyses to examine whether the meaning or significance of specific depressive symptoms differed. We considered all 14 items of the *DSM-IV* (9 items), Endicott (4 items) and Cavanaugh (1 item) criteria as items in an overall test for major depression.

The IRT assumes that a test or a scale measures a unidimensional latent trait. The latent trait is the construct that is expected to be measured by a test and therefore represents the severity of major depression in this study. The probability of the response "yes" is expressed in the form of a monotonically increasing function of the latent variable, which is called theta (θ). In this case, the greater the severity of major depression, the higher the probability of a positive response to a question asking about the diagnostic symptoms. The theta (θ) at which half of the sample answers yes (the diagnostic symptom is present) to a particular item is called the difficulty parameter of this item. The second parameter in the IRT model is known as the discrimination parameter. It indicates the slope of the item response curve at the difficulty parameter of the item. Hence, the higher the value of the discrimination parameter, the steeper the slope and the better the ability of the item to discriminate the responder's trait at or around a certain severity. The relation between the latent trait and the probability of a positive response for an item can be described by the item characteristics curve (ICC). The difficulty parameter represents the horizontal location of this curve, while the discrimination parameter represents the slope. Thus, the two parameters are used to describe the relationship between each symptom and the overall severity of major depression. For example, if a specific symptom was a less powerful

Table 2
Characteristics of referred cancer patients with major depression (N=728)

Age (years)	
Mean±S.D.	58±12
Median (range)	59 (17–95)
Sex, n (%)	
Male	329 (45)
Female	399 (55)
Marital status, n (%)	
Married	578 (79)
Unmarried	85 (12)
Widowed	57 (8)
Others	8 (1)
Years of education, n (%)	
<12	133 (18)
≥12	434 (60)
Unknown	161 (22)
Employment status, n (%)	
Full-time	228 (31)
Part-time	27 (4)
Housewife	257 (35)
Retired	112 (15)
Others	104 (14)
Setting, n (%)	
Inpatient	470 (65)
Outpatient	258 (35)
Cancer site, n (%)	
Lung	152 (21)
Breast	108 (15)
Stomach	68 (9)
Head and neck	68 (9)
Colon	61 (8)
Esophagus	53 (7)
Pancreas	43 (6)
Malignant lymphoma	26 (4)
Leukemia	19 (3)
Uterus	18 (3)
Others	112 (15)
Stage, n (%)	
Metastatic/Recurrent	425 (58)
Others	303 (42)
Performance status ^{a,b} , n (%)	
0	139 (19)
1	238 (33)
2	153 (21)
3	133 (18)
4	62 (9)
Pain ^b , n (%)	
Absent	271 (38)
Mild	190 (26)
Tolerable	187 (26)
Intolerable	71 (10)

^a Performance status, as defined by the Eastern Cooperative Oncology Group criteria, is an objective index of a patient's physical functioning, ranging from 0 (*no symptoms*) to 4 (*bedridden*).

^b Some data are missing.

indicator of depression in cancer patients, we would expect the ICC to have a shallower slope (i.e., a weaker correlation with overall depression severity) or a lower theta (i.e., a symptom that tends to occur at a lower level of depression).

To confirm that the IRT is, indeed, applicable, we assessed the dimensionality of the 14 combined *DSM-IV*, Cavanaugh and Endicott criteria using an exploratory factor

analysis (the principal component analysis relied on tetrachoric correlations) by TESTFACT 4.0 software [38]. The two IRT parameters of difficulty and discrimination were also estimated using the marginal maximum likelihood calculated by the computer program BILOG MG 3 [39].

3. Results

3.1. Patient demographics and medical characteristics

A total of 5431 cancer patients were referred during the study period. Among these patients, 728 (12.8%) who were diagnosed as having major depression according to the inclusive criteria were extracted from the database. The patient characteristics are shown in Table 2. Lung cancer was the most common diagnosis, while breast cancer was the second most common diagnosis. More than half of the

Table 3
Discrimination and difficulty parameters for each diagnostic criterion of major depression

Diagnostic criterion (prevalence)	Difficulty ^a	Discrimination ^b
Dysphoric mood (95%)	-4.544	-0.406
Loss of interest or pleasure (85%)	-2.376	0.490
Weight loss or gain or a decrease in appetite (75%)	-2.891	0.235
Insomnia or hypersomnia (71%)	-2.534	0.220
Psychomotor agitation or retardation (75%)	-1.985	0.346
Fatigue or loss of energy (92%)	-3.448	0.456
Feelings of worthlessness, self-reproach or excessive or inappropriate guilt (53%)	-0.205	0.393
Diminished ability to think or concentrate or indecisiveness (88%)	-3.194	0.396
Recurrent thoughts of death, suicidal ideation, wishes to be dead or suicidal attempt (41%)	0.615	0.376
Not participating in medical care ^c (51%)	-0.053	0.997
Fearfulness or depressed appearance in face or body posture (83%)	-1.329	1.054
Social withdrawal or decreased talkativeness (45%)	0.176	1.031
Brooding, self-pity or pessimism (66%)	-0.756	0.639
Cannot be cheered up, doesn't smile, no response to good news or funny situations (16%)	1.521	0.905

^a Difficulty parameter: The probability of the response "yes" is expressed in the form of a monotonically increasing function of the latent variable, which is called theta (θ). In this case, the greater the severity of major depression, the higher the probability of a positive response to a question asking about the diagnostic symptoms. The theta (θ) at which half of the sample answers yes (the diagnostic symptom is present) to a particular item is called the difficulty parameter of the item.

^b Discrimination parameter: It indicates the slope of the item response curve at the difficulty parameter of the item. Hence, the higher the value of the discrimination parameter, the steeper the slope and the better the ability of the item to discriminate the responder's trait at or around a certain severity.

^c Not participating in medical care in spite of ability to do so, not progressing despite improving medical condition and/or in functioning at a lower level than the medical condition warrants.

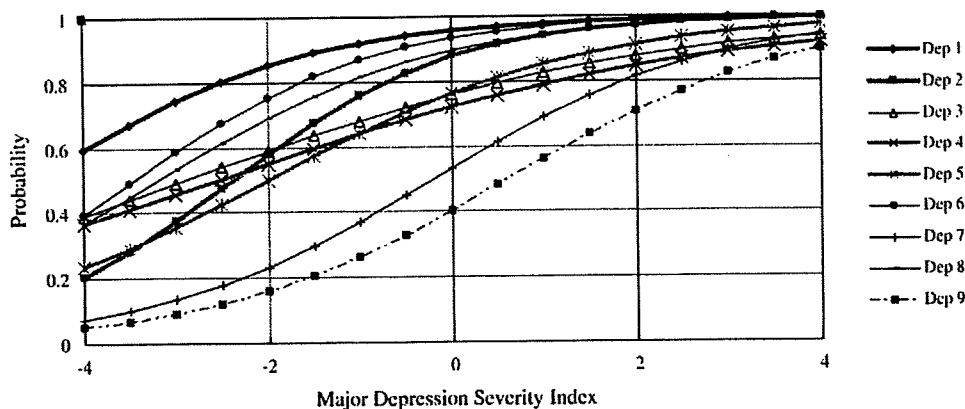


Fig. 1. ICCs of *DSM-IV* diagnostic criteria items for major depression in cancer patients. The curves show the probability that an individual symptom will be present as the overall severity of major depression increases. Depression severity is the trait measured by all items combined and is shown on a standardized scale (0=mean, 1 unit=1 S.D., -4=least severe depression, +4=most severe depression). Dep 1=dysphoric mood; Dep 2=loss of interest or pleasure; Dep 3=weight loss or gain or a decrease in appetite; Dep 4=insomnia or hypersomnia; Dep 5=psychomotor agitation or retardation; Dep 6=fatigue or loss of energy; Dep 7=feelings of worthlessness, self-reproach or excessive or inappropriate guilt; Dep 8=diminished ability to think or concentrate or indecisiveness; Dep 9=recurrent thoughts of death, suicidal ideation, wishes to be dead or suicidal attempt.

patients suffered from metastatic and/or recurrent cancer. More than 80% of the patients had some degree of decline in physical functioning (PS=1–4), and more than 60% of the patients had some degree of pain. Only 2 (0.27%) subjects did not disclose their cancer diagnosis.

3.2. Dimensionality

The exploratory factor analysis revealed that the first factor accounted for 26.1%, verifying that the data were sufficiently unidimensional for further IRT analysis.

3.3. Estimation of IRT parameters

The discrimination and difficulty parameters of the 14 diagnostic items are shown in Table 3. The ICCs provide visual summaries of the two parameters for each item

(Figs. 1 and 2). Visual inspection of these ICCs reveals the following findings. Regarding the nine *DSM-IV* diagnostic criteria (Fig. 1), most of the items [except for feelings of worthlessness (Dep 7) and suicidal ideation (Dep 9)] had a high probability at a low level of major depression severity. Thus, these seven criteria have relatively low difficulty and discrimination parameters. Both feelings of worthlessness (Dep 7) and suicidal ideation (Dep 9) appeared to have moderate difficulty and low discrimination parameters. These criteria are often not reported when the severity of major depression is low and gradually start to be reported when the severity of major depression becomes moderate (around $\theta=0$). The item proposed by Cavanaugh (not participating in medical care in spite of ability to do so, not progressing despite improving medical condition and/or in

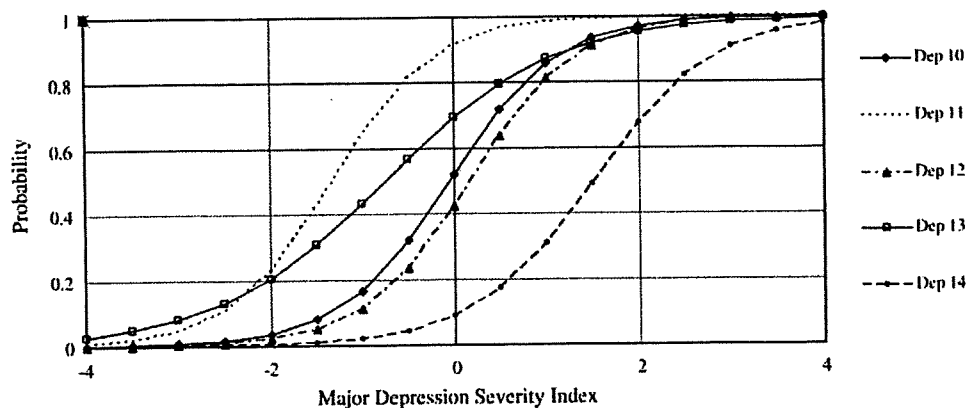


Fig. 2. ICCs of alternative diagnostic criteria items for major depression in cancer patients. The curves show the probability that an individual symptom will be present as the overall severity of major depression increases. Depression severity is the trait measured by all items combined and is shown on a standardized scale (0=mean, 1 unit=1 S.D., -4=least severe depression, +4=most severe depression). Dep 10=not participating in medical care; Dep 11=fearfulness or depressed appearance in face or body posture; Dep 12=social withdrawal or decreased talkativeness; Dep 13=brooding, self-pity or pessimism; Dep 14=cannot be cheered up, doesn't smile, no response to good news or funny situation.

functioning at a lower level than the medical condition warrants; Dep 10) had a moderate difficulty and a high discrimination parameter (Fig. 2). Among the four criteria proposed by Endicott, fearfulness or depressed appearance in face or body posture (Dep 11) and brooding, self-pity or pessimism (Dep 13) had relatively low difficulty and high discrimination parameters (Fig. 2). The item “cannot be cheered up, doesn’t smile, no response to good news or funny situations (Dep 14)” had high difficulty and discrimination parameters. The item “social withdrawal or decreased talkativeness (Dep 12)” had a moderate difficulty and a high discrimination parameter.

4. Discussion

Our findings suggest that each individual symptom differs in nature and may occupy a specific position regarding the judgment of major depression severity in cancer patients.

As several previous studies have repeatedly indicated and/or suggested, the somatic symptoms (appetite loss, weight loss, insomnia, fatigue, loss of energy and diminished ability to think or concentrate) among the *DSM-IV* diagnostic criteria may not be useful for diagnosing and/or judging the severity of depression among cancer patients; this conclusion was supported by the results of our IRT analysis, which showed these symptoms to have low difficulty and low discrimination parameters. This finding is not surprising because these symptoms are well known to be common to both major depression and physical illness itself [35,40,41], and more than 80% of the subjects in the present study had some degree of physical function impairment. The IRT results also suggested that neither feelings of worthlessness nor suicidal ideation was a good indicator of the severity of major depression. Although several previous studies have suggested that among the operational diagnostic criteria items, including the Research Diagnostic Criteria and the *DSM-III* and/or *DSM-IV* criteria, the items “feelings of worthlessness” and “suicidal ideation” may be more useful than somatic items for evaluating the severity of depression [35,42]; our findings suggest that these items are not sufficiently useful for judging the severity of major depression in cancer patients. This outcome may be partly explained by the observation that these symptoms are also quite common symptoms of cancer itself. Several previous studies have demonstrated that cancer patients, especially advanced/terminally ill cancer patients, often suffer from the perception that they are a burden on others, and this perception is associated with a concern for others that can produce feelings of worthlessness, self-reproach or guilt [43–45]; these previous results may be related to the finding that the “worthlessness” item had a moderate difficulty and a low discrimination parameter. Thus, although the “worthlessness” item may be more useful than somatic items for diagnosing more severe depression among cancer patients, the usefulness of the “worthlessness” item seems to be limited when evaluating the severity of major depression in a

consultation–liaison psychiatry setting. Similar findings regarding the “suicidal ideation” item have also been obtained in previous studies (e.g., suicidal ideation is quite common among cancer patients) [36,46–48], suggesting the limited usefulness of this item as a symptom indicator of severe major depression among cancer patients. As described above, the fact that the majority of the subjects in the current study were advanced cancer patients with a decline in physical functioning may support these findings. Thus, both feelings of worthlessness and suicidal ideation do not seem to be specific symptoms for evaluating the severity of major depression in cancer patients. These findings suggest that the current *DSM-IV* operational diagnostic approach may contain some weaknesses when applied to cancer patients.

On the other hand, the item proposed by Cavanaugh (not participating in medical care in spite of ability to do so, not progressing despite improving medical condition and/or in functioning at a lower level than the medical condition warrants) and one of the items proposed by Endicott (social withdrawal or decreased talkativeness) had moderate difficulty and high discrimination parameters in the IRT analysis and may be useful markers of the severity of major depression among cancer patients. These parameters appear to be good markers of moderately severe major depressive disorder in cancer patients (Table 4). In other words, when cancer patients have these symptoms, mental health professionals can presume that major depression may be at least moderately severe. As mentioned above, the inclusive approach is generally recommended for the diagnosis of major depression in physically ill patients in a clinical setting to avoid underdiagnosing depression. On the other hand, the inclusive approach often produces false-positive cases of major depression in whom the provision of standard psychiatric treatments [18], typically the administration of antidepressants, may not be necessary or may even be potentially harmful. Therefore, our findings suggest the

Table 4
Recommended items for evaluating severity of major depression in cancer patients

Severity of major depression	Recommended items for evaluation
Mild	Fearfulness or depressed appearance in face or body posture Brooding, self-pity or pessimism
Moderate	Not participating in medical care in spite of ability to do so, not progressing despite improving medical condition and/or in functioning at a lower level than the medical condition warrants Social withdrawal or decreased talkativeness
Severe	Cannot be cheered up, doesn’t smile, no response to good news or funny situations

For example, the presence of the item “not participating in medical care in spite of ability to do so, not progressing despite improving medical condition and/or in functioning at a lower level than the medical condition warrants” can be a good marker of moderately severe major depressive disorder in cancer patients.

usefulness of a two-stepped diagnostic approach for evaluating moderately severe major depression among cancer patients, with the evaluation of these two items (not participating in medical care in spite of ability to do so, not progressing despite improving medical condition and/or in functioning at a lower level than the medical condition warrants, and social withdrawal or decreased talkativeness) after the application of the inclusive diagnostic approach. In addition, because the item “not participating in medical care in spite of ability to do so, not progressing despite improving medical condition and/or in functioning at a lower level than the medical condition warrants” is considered to be closely associated with the C criterion for major depression in the *DSM-IV* (the symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning), our findings suggest that an evaluation of the influence of the symptoms on social functioning is relevant for assessing the severity of major depression in cancer patients. Thus, when cancer patients are diagnosed with major depression using an inclusive approach, the evaluation of these symptoms may help clinicians to select appropriate treatment.

Each of the remaining three items proposed by Endicott also had unique characteristics for assessing the severity of major depression among cancer patients. The items “fearfulness or depressed appearance in face or body posture” and “brooding, self-pity or pessimism” had relatively low difficulty and high discrimination parameters and may be good markers for mild major depressive disorders among cancer patients (Table 4). However, because anxiety often coexists with depression in cancer patients and the predominance of anxiety may mask “fearfulness or depressed appearance in face or body posture”, it may be potentially difficult to evaluate this item when a patient suffers from moderate to severe anxiety. Additionally, because judging body posture in bedbound, weak patients may also be difficult, the utility of the item “fearfulness or depressed appearance in face or body posture” may be limited in debilitated patients. On the other hand, the item “cannot be cheered up, doesn’t smile, no response to good news or funny situations” had a high difficulty and a moderate discrimination parameter and may be a good marker for severe major depressive disorder in cancer patients (Table 4). These findings suggest that cancer patients with depression who exhibit the symptom “cannot be cheered up, doesn’t smile, no response to good news or funny situations” may be appropriate candidates for the administration of antidepressants. Further study is needed to clarify which diagnostic criteria are most appropriate for diagnosing major depression among physically ill patients who may benefit from medical treatments.

Although it was not the principal purpose of our study, we would like to note that the current study demonstrated that all the items proposed by Cavanaugh and Endicott had higher discrimination parameters and were therefore better markers for evaluating the severity of major depression than any of

the items included in the *DSM-IV* diagnostic criteria. These findings suggest the usefulness of alternative diagnostic approaches, rather than the *DSM-IV* approach, when diagnosing and/or assessing major depression among physically ill patients, especially among cancer patients, in a consultation–liaison psychiatry setting.

In conclusion, the findings of the present study suggest that alternative criteria may have utility in diagnosing depression severity in cancer patients. On the other hand, behavioral phenotypes (e.g., fearfulness or depressed appearance in face or body posture; brooding, self-pity or pessimism) need to be defined more rigorously in the future studies.

This preliminary retrospective study has several limitations. To determine the best approach to measuring depression severity, it would have been useful to compare the present results with an appropriate scale for depression severity, such as the Hamilton Depression Scale or the Beck Depression Inventory. However, such data were not available. Since only referred cancer patients diagnosed with major depression were used as subjects, our findings cannot be generalized to describe all cancer patients with depression. Another important problem is the inability to verify the reliability of the diagnostic interviews and the evaluations used to arrive at a diagnosis of major depression and to evaluate the proposed alternative diagnostic items. An evaluation manual regarding the alternative diagnostic criteria should be developed for future studies. In addition, the referred patient sample may have been influenced by a physician bias. Finally, because symptom profiles or the manifestation of symptoms of depression can be influenced by cultural differences [49,50], the obtained findings may not be generalized to patients in other countries.

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Suicide Associated with Corticosteroid Use During Chemotherapy: Case Report

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Corticosteroids are widely known to have a variety of adverse mental effects. Although corticosteroids are frequently used to prevent vomiting induced by chemotherapeutic agent, their mental effects have received little attention in oncology settings. We report the case of a patient who experienced severe depressive symptoms after both the first and second course of treatment with a corticosteroid during chemotherapy and ultimately committed suicide. The temporal and dose–response relationships suggested a possible association between the depressive symptoms and corticosteroid. We ultimately speculated that corticosteroid withdrawal induced the depressive symptoms in this case. This case should alert clinical oncologists to pay attention to mental symptoms after prescribing a corticosteroid.

Key words: corticosteroid – mood disorder – suicide – chemotherapy

INTRODUCTION

Corticosteroids act on the hypothalamic–pituitary–adrenal (HPA) axis, which has close association with mental activity (1), and it is widely known that various adverse mental effects such as mood disorders sometimes occur following corticosteroid administration, corticoid dose reduction or discontinuance of a corticosteroid (2). Since corticosteroids are frequently used to prevent chemotherapeutic-agent-induced nausea and vomiting (3), some cancer patients develop mental symptoms as adverse effects of the corticosteroid therapy. However, corticosteroid-induced mental adverse effects after chemotherapy have received little attention and have not been elucidated by epidemiologic studies. We report the case of a patient who developed severe depressive symptoms after both the first and second course of treatment with corticosteroids during chemotherapy and ultimately committed suicide. Although we were not able to find any reports of similar cases in a search of the literature, a possible association between the depressive symptoms and the corticosteroid was suggested in this case.

CASE REPORT

The patient was a 68-year-old woman who underwent total mastectomy and axillary lymph node dissection for a

diagnosis of cancer of the left breast. Histopathological examination revealed invasive ductal carcinoma and four positive lymph nodes in the axilla. The TMN classification was T2N1M0, Stage IIb. When the patient was informed of the cancer diagnosis, her negative psychological reaction was comparatively minor, because she had not felt very seriously ill and had maintained an active life, and she confronted her disease and surgical treatment positively and constructively. Four courses of doxorubicin plus cyclophosphamide combination chemotherapy (doxorubicin 90 mg, iv on day 1; cyclophosphamide 900 mg, iv on day 1) were scheduled on an outpatient basis as adjuvant chemotherapy (Fig. 1). Although dexamethasone (24 mg, iv on day 1; 8 mg, po on days 2–4), granisetron and prochlorperazine were administered for antiemesis, the patient experienced severe nausea and vomiting from days 3 to 7 after administration of the anticancer agents, and even after the vomiting stopped, it became apparent that she felt depressed. There were no other adverse effects, such as fatigue, that were likely to have been caused by the chemotherapy.

Because of the severe nausea and vomiting after the first course of chemotherapy, the second course of the chemotherapy was performed on an inpatient basis starting on day 27 after the first administration of anticancer agents. To

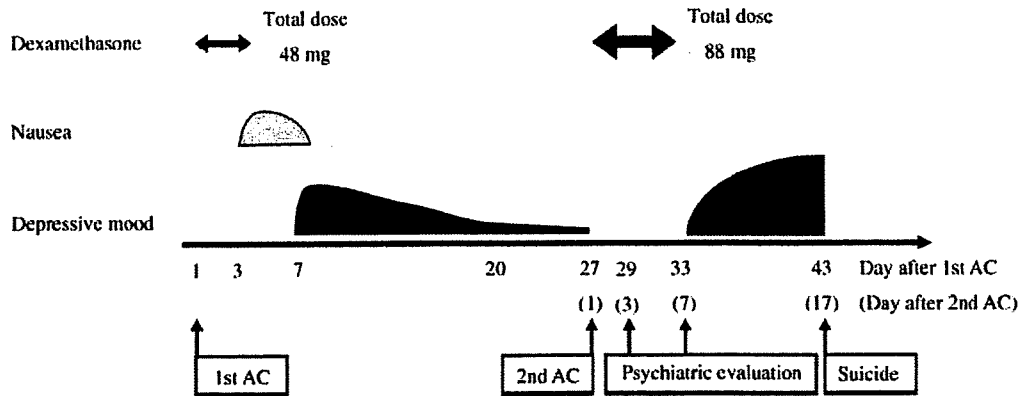


Figure 1. Procedure of the chemotherapy and symptoms. AC, combined doxorubicin plus cyclophosphamide chemotherapy; iv, intravenous administration; po, per os. The dosage of dexamethasone was 24 mg, iv on day 1; 8 mg, po on days 2–4 on the first course, and 24 mg, iv on day 1; 16 mg, po on days 2–4; 8 mg, po on days 5–6 on the second course.

reduce the nausea and vomiting, the dose of dexamethasone was increased and it was administered for a longer period than during the first course (24 mg, iv on day 1; 16 mg, po on days 2–4; 8 mg, po on days 5–6). In addition, the patient was referred to the psycho-oncology division on day 3 of the second course for her depressive symptoms. A psychiatric evaluation was performed and the course of her depressive symptoms was reviewed the same day. The results showed that from days 7 to 20 of the first course of chemotherapy, she had experienced severe symptoms of depression, including depressed mood, markedly diminished interest or pleasure at all, decreased appetite, hypersomnia and fatigue but had not had recurrent thoughts of death, and that her symptoms met the criteria for major depressive episode in DSM-IV-TR. Since then her depressive symptoms had gradually decreased, and after administration of the second course, she had rapidly recovered and had no depressive symptoms by the time of the psychiatric evaluation. She was not sure what caused her depressive symptoms. Because the patient had no past history or family history of psychiatric disorders, including mood disorders, addiction or suicidal ideation, no health problems other than cancer, no addictions and no financial problems, and her psychological reaction to the cancer diagnosis had been minor, we considered the possibility that the episode was associated with corticosteroid administration, but the evidence was not conclusive at that point.

The patient experienced little nausea during the second course of chemotherapy, and she was discharged on day 7 with no physical or psychiatric problems. We examined the patient immediately before discharge on day 7 of the second course, since she had developed corticosteroid-induced depressive symptoms on day 7 of the first course. Thinking that she might develop depressive symptoms again, we scheduled the first outpatient clinic visit for day 21 of the second course, but instructed the patient to contact us anytime she experienced any emotional problems.

Despite our measures to detect depressive symptoms early, the patient committed suicide by hanging on day 17 of the second course. Her family told us that after discharge she had appeared to have gradually become more severely depressed than after the first course, and that she had a gloomy facial expression and had stayed in a dark room all day long at home doing nothing.

DISCUSSION

We have reported the case of a breast cancer patient who developed depressive symptoms after both courses of chemotherapy. During the second course, she was treated with a higher dose of dexamethasone and experienced severer depressive symptoms that led to her suicide. Doxorubicin or cyclophosphamide was administered concurrently, but neither drug is known to induce mental symptoms. The temporal and dose–response relationships between the corticosteroid administration and the depressive symptoms in our patient suggest possible induction of severe depressive symptoms by the corticosteroid.

Corticosteroids are generally used as effective drugs to control chemotherapeutic-agent-induced nausea and vomiting (3), but, as is well known, they sometimes induce various adverse mental effects such as mood disorders, delirium and psychotic disorders (2). Incidences of corticosteroid-induced adverse mental effects from 1.8% to 57% have been reported (4). Naber et al. (5) found that 36% of ophthalmologic patients developed a mood disorder during steroid therapy and 10% of the patients in their study developed a depressed mood. The corticosteroid dose is an important risk factor for the development of mental symptoms (4), and the severity of the symptoms appears to be dose-dependent (6). The higher dose of the corticosteroid used to control our patient’s intolerable vomiting may have led to the exacerbation of her mental symptoms.

There was a lag between the administration of the corticosteroid and the onset of the depressive symptoms in our

patient. She experienced depressive symptoms a few days after the final dose of dexamethasone during the first course. Her depressive symptoms rapidly improved soon after the start of the second course, but they flared up again after dexamethasone was stopped on day 7, and she ultimately committed suicide on day 17. A direct pharmacological action of corticosteroids causes depressive symptoms (2), and we initially suspected that the corticosteroid had induced the depressive symptoms, but we ultimately speculated that corticosteroid withdrawal induced the depressive symptoms in this case. Some case reports (7,8) have shown that corticosteroid withdrawal symptoms commonly take the form of depression, anxiety and fatigue, but the incidence of corticosteroid withdrawal symptoms have never been revealed in previous reports. They are sometimes associated with evidence of HPA axis suppression, and withdrawal syndromes can occur during both acute and long-term corticosteroid therapy (6,9). Therefore, caution should be exercised with regard to adverse mental effects after even a brief course of corticosteroid therapy.

Although this may be a rare case of the worst outcome, i.e. with the patient committing suicide, patients who receive chemotherapy may be at risk for depressive symptoms when treated with a corticosteroid. This case should alert clinical oncologists and psychiatrists to pay attention to the mental symptoms, especially depressive mood, during the relatively long-term care of their patients undergoing chemotherapy who are treated with a corticosteroid concurrently. Physicians should screen their patients for depressive symptoms and, if any are found, conduct a careful follow-up in view of the possibility of a suicide attempt. Further observational research is necessary to see the picture.

Finally, we were careful to protect the patient's anonymity in this report. More specifically, we have not included any information that could be used to identify the patient, such as her name, department where she was treated or date of admission.

Conflict of interest statement

None declared.

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特集

腫瘍内科医に必須のサイコオンコロジー

がんに対する 通常の心理的反応*

内 富 庸 介**

Key Words : psychological reaction, psycho-oncology, depression, anxiety, truth-telling

はじめに

インフォームドコンセントを前提としたがん医療では、診断を含む多くの(主に悪い)情報が説明され、最終的に患者の同意をもって医療がはじまる。「説明と同意」というインフォームドコンセントの訳を、人の心(知・情・意)に横並びに対比させると、「情」がすっぱり抜け落ちていることがわかる。本来、説明すべき情報という言葉には「情」が入っているが、単なる「説明」というと画一的な無機質な「知」の提供という冷淡な響きがある。

1970年代後半には欧米のがん医療ではインフォームドコンセントが患者の権利として導入された。1990年代に入るといかに悪い知らせを伝えるかという、伝えた後の「情」を配慮するインフォームドコンセントが意識されるようになり、つまりそのコミュニケーションスキルを学ぶ研修会が開催されるようになった。個人主義ではなく、欧米以外の家族を重視した文化圏にも配慮をしたためでもある。近年、コミュニケーションスキルは米国臨床腫瘍学会でも教育カリキュラムに含まれ研修会が開催されるようになった。

本来、患者の感情を理解することもインフォー

ムドコンセントには含まれているはずである。医師には、「情」に配慮を示すインフォームドコンセントを、そしてすべての医療従事者には「情」のこもったコミュニケーション技術の習得が期待される。

ここではインフォームド・コンセントを前提としたがん医療の現場で経過に添ってみられる「情」、通常の心理的反応とその基本的対応について述べる^{1)~6)}。

がんへの心の反応に関連する要因

患者のがんに対する心理的反応は、図1に示すごとくQOLの一側面であるが、がんの種類とその治療法によって大きく影響を受ける。がんの部位・病期により予後はさまざまであり(完治から非治癒まで)、また治療法によりその後の障害の程度がさまざまである。とくに、難治がん、頭頸部がんの心理的適応は難しい。

次に、身体状態が重篤で、適切な症状緩和やリハビリテーションが行われなければ、心理的反応は当然影響を受ける。逆に、痛みがなく日常生活への支障がないと、良好な心理状態が維持されることが多い。

次に、心理・社会・行動学的要因として、まずがん罹患した年齢があげられる。各年代には人生の上での役割や課題があり、がん罹患することでそれらが大きな危機にさらされる。

* Normal psychological reaction to cancer.

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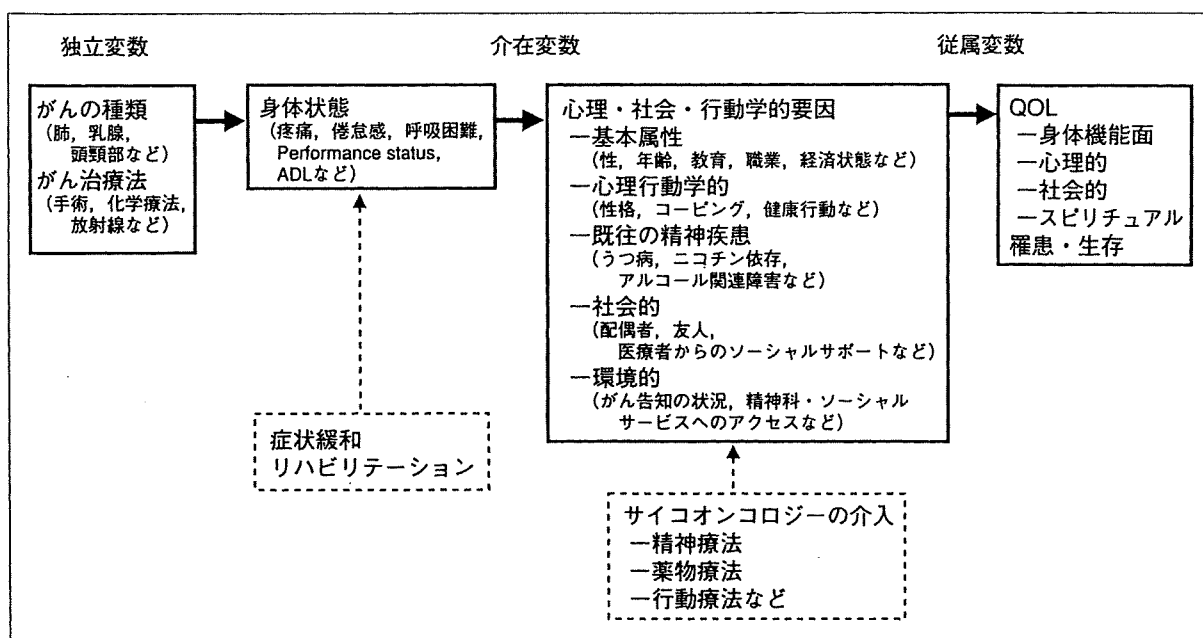


図1 QOLと罹患・生存に関するサイコオンコロジーモデル

とくに未成年の子供を抱えた壮年期の患者、とくに乳がん患者は、現実的な職業上・経済上・家庭内での問題を多く抱えており、それらが何かを理解した上で援助することが重要である。

一般的には、がんという大きな課題に対し有効とされている対処法は、楽観的な見方を持ち続け、がん治療への建設的で能動的なアプローチを探索し、他人からの援助を積極的に受け入れていく姿勢である。しかし、現在までのところ生存に有意に関連する特別な性格や対処法はないので、たとえば、神経質な方いきなり外向的に指導するようなことは避けたい。患者にはこれまでの人生で課題を乗り越えるために使い慣れた対処法があり、その方法を尊重することも重要である。とくに患者ががんに対する信念や民間療法を訪ね回ってきた行動を語った場合、それが医療スタッフには無駄な努力に感じられても、それに対する言動はきわめて慎重に行いたい。あからさまに叱責したりすることは有害である。

患者はがんの診断により、大きな心理的衝撃を受けると同時に多くのがんに関する情報を手にしていく。その過程で、家族・スタッフからの心理的援助、とくに治療を担当する医師からの心理的サポート、つまり良好なコミュニケーションは当然であるが重要である。人的資源の

乏しい患者は不適応を起こしやすく、地域や病院内でのがん告知の状況、精神科やソーシャルサービスへのアクセスなど環境も考慮しなければならない。身近な人をがんで亡くした経験も適応を悪くする要因である。日常的にマスメディアから入ってくる豊富な情報の中で、まったく真実を告げられずあるいは不確かな情報をもとに、疑念を抱きながら闘病することは、患者のみならず家族・スタッフにとってもきわめて難しい状況となっている。また、患者の復帰を受け入れる社会のもつがんに対する先入観は、患者に過度の恐怖や絶望を与える場合がある。

がんの臨床経過に添った患者の心理的反応

がん患者のたどる新しい局面において、その都度新しい情報が開示され適応していくこととなるが、少なからず不確実な部分を含んでおり、診断の開示の有無にかかわらず常に不安と期待を抱えている。楽観的に建設的ながん治療に取り組む患者において、否認は少なからず観察される。

1. がんの症状自覚

まず、がんを疑う症状を自覚した時から患者の心理的反応は始まる。がんの疑いを誰もが否認するが、不安がもともと高い人や、がんは治

らないという考えや自分の健康に関して強い信念をもっている人などは、医療機関への受診が遅くなる。“受診遅延”を減らすためにはがんに対する恐怖に満ちた先入観を減らし、正しい知識を提供することが重要である。

2. がんの精査

検査中、大丈夫だという思いと最悪の場合を恐れる気持ちとの間を揺れ動く。見慣れぬ機械に囲まれて検査を受ける患者にとって、医師や技師の一挙手一投足が大きなストレスとなり、心理的配慮は非常に重要である。この時期の患者は理解力や記憶力が落ちており、ちょっとしたスタッフの会話に敏感に反応することを銘記しておくべきである。また、得られた検査の結果を早めに伝えることは、きわめて重要である。

3. がんの診断

危機的状況に際してがん患者は衝撃を受ける。“頭が真っ白になった”と表現することもある。その後、がんという生命の危機への最初の防衛機制は“信じないこと＝否認”である。「何かの間違いではないか!」。否認は、こうして心理的に距離を置いて、危機から自分を守ろうとする合目的な対処方法である。そのほか、“もう駄目だ、治療も無駄だ”と絶望感を感じる。怒り(「どうしてあいつでなく自分なんだ」)や取り引き(「きつといい治療法が間に合うに違いない」)といった防衛機制を状況に応じて使って心のバランスを保ち、一貫して希望を持ち続ける。がんの臨床経過に添って段階的に心理的過程を踏んで進んでいくというよりは、混在した機制をもっていると理解したほうがよい。

この最初の2～3日間続く衝撃の時期の患者は、医師の説明が理解されていないこともあるので、治療計画などを伝えるには、沈黙を十分にとりながら動揺した気持ちへの対応が必要である。混乱・不安・恐怖・悲哀・無力感・絶望感などとともに、不眠・食欲不振などの身体症状や集中力の低下が感じられるようにあり、一時的に日常生活に支障をきたす場合もある。

1週間から10日でこの状態は軽減し、新たな状況への適応の努力が始まる。このような動揺は患者の多くが経験することであることを伝えることが患者には大きな保証となる。「自分ひとり

が弱いのではないか」と感じるものがむしろ一般的である。適応が始まると、患者は情報を整理し、現実の問題に直面することができるようになり、楽観的な見方もできるようになる。たとえば進行がんであっても身体状態が悪くなければ自分のがんに限っては良くなるかもしれないと希望をもつのが一般的である。健康な否認である。がんに関する知識がこの時点では少ないことと関係しているのかも知れない。がんの症状自覚から現在までの情報整理を患者と一緒に振り返りを行う過程で信頼関係は築かれ、単なる知識も感情の表出を促しながら腑に落ちる。より良いコミュニケーションが生まれ適応は早くなる。

一方では、情報化社会の現代においても病名すら知らされていない患者も存在する。このような患者の多くは、しばらく経つと病状は認識されていると考えるのが妥当であろう。認識していながらも、家族に迷惑をかけてはと家族とのコミュニケーションを自ら絶ちきる患者も少なくない。

4. 初期治療

患者の次の局面は初期治療である。インフォームド・コンセントが求められる。いくつかの選択肢の中から治療法を選ばなければならない場合、患者は治療のネガティブな側面はとくに記憶に残りにくいため、情報の伝え方やその後の理解の仕方の確認は重要である。また、がんの治療はつらい、生命を縮めかねない危険なものというイメージも強く、治療を待つ間の不安は非常に高い。具体的には治療の手順、予期される副作用やその対策を伝えることが不安を低下させる。その治療の経験者に話をしてもらうことはさらに有効である。

手術は治療が期待できる反面、機能障害や外見上の変化をもたらす。その程度は適応を大きく左右する。全身麻酔に対し強い恐怖を抱く患者もいる。化学療法には種々の副作用があるが、なかでも悪心・嘔吐は行動学的に条件付けされやすく、化学療法を連想させる病院や医療スタッフに接しただけで悪心・嘔吐を示す患者もいる(予期的嘔吐)。強力な制吐剤(セロトニン3ブロッカー)を適切に使用することや治療前からリラク

ゼーションの練習を行ってある程度自分で症状をコントロールする試みも予期的嘔吐に対し効果的である。脱毛・肥満など外見を変化させる副作用は患者の自尊心を低下させ、社会活動を減少させるため対策が必要である。放射線療法に対しては、被爆および手遅れの患者への治療というイメージからくる恐怖が強い。これらの治療に耐える力を患者に与えるために、スタッフは積極的に情報や心理的援助を与えるべきである。

5. リハビリテーション

大まかに3つの時期を迎える。①初期治療から1年間、②治療後3年間、③治療後3年以降の時期である²⁾。

あわただしく進んだ初期の集中的な治療から離れ、まさに急性の危機的状況から徐々に日常へ戻っていくわけだが、退院と同時に入院中の医療者、家族や同病者からの過剰なサポートから放たれる。6か月から1年をめどに治療に関連した身体状態は概ね回復し、身体に関する不安・恐怖は弱まっていく。しかし一部の患者では、進行がんを末期がんとして解釈したり、治療に関連した機能障害や外見上の変化(頭頸部がん、脱毛)が喪失として強く認識され、自殺のリスクが高い時期である。身体の喪失は少なくとも、健康な人の中に戻っていくことはがん患者ということで家庭や社会での役割が修正され、疎外感を強く感じる。この時期には、弱音を吐ける存在、さらにサポートグループやがんに関する教育などの心理的援助がきわめて重要である。

[症例1] 会社員のA氏(43歳)、大腸がん。

「仕事に戻れるとは思ってもいなかった」と手術を受けた半年前を遠い昔のように振り返る。驚天動地のがん告知、ためらう間もなく受けた手術、過剰なほどスタッフや同病者から援助を受けて躁(そう)状態のような入院生活。そして、退院後、独りになって襲ってきた死の恐怖、再発不安……。社会復帰してから痛感する、がん患者の烙印(らくいん)、疎外感。復職しても3年間は心の中の余震(再発不安)が襲う。家族や友人とともに、集めたがんの知識を整理し、がんを抱えた後の気持ちを打ち明けること。「これこそ、心の支援対策の第一歩だった。心を許せる

同僚や家族の存在が何よりの助けだった」と振り返った。

初期治療後から3年間は再発の可能性が高い時期であり、つらい時期である。身体の症状が沈静化すると再発不安が顕在化する。たとえば乳がんの補助化学療法が辛い治療であったにもかかわらず、治療の手を緩めることで再発するのではないかといった恐怖を抱く。さらに、倦怠感、エネルギーの低下、機能喪失(術後リンパ浮腫など)、仕事への復帰、親業の変更、生殖能力、性的問題などが現実の問題となる。とくに、肉体労働、受け入れ態勢の不備、頭頸部がんは復職率の悪さと関連する。

治療後3年を経ると、多くのがんで再発の可能性が低くなり、「そういえば、テレビをつけるまでがんのことを忘れていた」とか「今週はがんのことを考えない時間帯があった」などの声が少しずつ聞かれるようになる。がんになる前の価値観とその後の優先事項の整理が行われ、人生の再統合、再設計を図っていく時期となる。エネルギーの低下などの身体状態や社会とのつながり(仕事、リクリエーション活動)に関する問題などにより、拡大していた将来計画は修飾され収束する一方で、心理学的には家族や友人との関係やスピリチュアルな側面は充実していくようである。

6. 再発

がん患者の約60%は、がんの再発、進行、死の転帰をたどる。再発を告げられた患者の心理過程はがん診断時のそれとほぼ同様である。が、がんの知識が豊富に整理されている分、事態はきわめて深刻で、現実を否認しきれず破局的な心理的打撃を受ける。もっともつらい時期であったと述懐する患者が多い。治療を目標とした治療が不成功に終わったことを、医師も患者とともに受け入れる必要がある。この再発の時期は、将来にわたる重要な決定が待ち受けている時期なので、安易なコミュニケーションでやり過ごすのではなく、しっかりと受けとめる必要がある。がんの治癒が望めない以上、患者、家族の本来の人生目標、生活信条を聞き出し、患者の意向に副ったがん医療の提供が望まれる。目標が治癒から延命に変わったわけであるから、洋

の東西を問わずもっとも深刻な時期である。きちんとコミュニケーションが取れていない場合が多く、ここからのボタンの掛け違いが起りやすい。

死と時間が限られていることに直面する一方で、多くの現実的問題に対応していかなければならない。がん年齢世代は自立をすでに獲得した年代であるので、自立性の喪失に引き続く他者への依存が予期され苦痛となってくる。自立性の喪失そして自律性の喪失からくる苦痛が迫る。

湧いてくる怒り、見放されることへの恐怖が語られる一方で、不確実さからの解放が述べられることもある。スタッフはどういう状況下でも希望を支えつつ、最善の治療を継続してゆくこと、同時に苦痛はコントロールできることを積極的に伝えて行かなければならない。再発時の精神的動揺は、それを予期していなかった患者においてより強い。このことから、初期治療終了後の医学的な教育が有用であるといえる。

7. 進行期

病状がしだいに進行してくると、種々の身体症状のために日常生活が制限される。患者の精神状態はその日その日の体調により大きく左右され動揺するため、症状緩和はきわめて重要である。自立できないことが増えるにつれ、他者への依存が現実のものとなってくる。とくに、依存の相手となる身近な人(付き添い、同室者、担当スタッフなど)との人間関係が患者の生活を左右するため、見捨てられることへの不安が強くなり、患者は従順となる。残された唯一のものが意思決定能力となることもありうるので、積極的な意思決定への参加を常に意識する必要がある。

一方で、より近づいてきた死に対する防衛機制として、否認がしばしば用いられ、がんがまるで念頭にないかのような言動、時計が早回りしているかのように精神的になったり無謀な活動を始めたりすることがある。患者のこのような態度と時間が残り少ないことに焦る家族やスタッフとの間にギャップが生じるが、ある程度は患者が安定を保つためにやむを得ず行っている反応として受け入れる必要がある。

8. 終末期

終末期は一般的に治癒の可能性がなくなり、予後が概ね6か月の時期と定義される。しかし、目標が治癒から延命に変わったときと医師が判断した時点から終末期への準備を始めてもよいだろう。積極的抗がん治療の中止からの移行を患者に伝えることは非常に難しいコミュニケーションの一つである。治療法がないことは患者に伝えられていなくても、死に臨んでいる患者は、周囲の状況から自分の状況についてよく感じとっている。終末期には愛する人との関係を失うこと、自律性を失うこと、身体機能を失うために生じる自立性の喪失など多くの喪失が待ち受けている。ここで注意したい点は、患者は「死」そのものというよりも、「役に立たないから周囲の重荷になっているのではないか、自分は価値がないから見捨てられているのではないか」という精神的苦痛を抱きやすくなっていることである。とくに、「自分は何のために生きてきたのだろうか、何を成し遂げてきたのか」という「人生、志なかば」との思いの強い患者においては、医療チームによるスピリチュアルなケアは重要となってくる。

孤立感を増す原因は病院にもある。多くの病院・病棟・病室は、急性の病気の治療を効果的に遂行できるように作られている。使用されることはないと思われる最先端の医療機器に囲まれた病室に死にゆく人がいることに、医療者も家族も、そして患者自身も居心地の悪さを感じている。治癒できる急性期の患者が大半を占める病棟では、治癒できないことは敗北に等しいと感じてしまうこともある。また、死にゆく人にケアを意識しながらも、急性期の患者の処置に追われることに負い目を感じている医療者もいる。不快な症状が長引いて患者が一時的に自暴自棄になったりして、周囲に怒りとして感じられるようになると、スタッフは足が遠のいてしまう。わが国の病院・病棟・病室では、「死にゆく患者」は何かしら特別なものであると感じられてしまう。患者は医療者のこのような感情を敏感に感じ、孤立感を増す。がん患者の95%が死を迎える一般病院に精神科医を含めた緩和ケアチームの導入が期待される。