said to often have hypochondriac fixations in the form of excessive apprehension and fear of physical disease. On the other hand, there were few complaints of depression as a mood disorder, and because their depressed moods were not prominent, depression tended to be overlooked. Thus, based on the results of this study it appears possible to use hypochondriac symptoms as a clue to the presence of depression.

Visual impairment was also significantly associated with depression. There is a report that even mild visual impairment in elderly persons residing in the community has a great impact on the onset of depression (Horowitz, Reinhardt, & Boerner, 2005). Because the information obtained by vision decreases when an impairment is present, body movements decrease, and the range of activities decreases due to increased fear of falling. In addition, the field of vision narrows, changes in color perception occur, brightness adaptation declines, and the likelihood of decreased orientation and hallucinations also increases. Thus, visual impairment is a symptom that often develops in the elderly, but not evaluated accurately (Abyad, 1997). Based on the results of this study, early screening for symptoms of visual impairment appears to be important from the standpoint of mitigating or preventing declines in physical capacity or function, and, in turn, depression. Taking the environment, methods of assistance, and work into consideration seemed to be important in both daily living and rehabilitation settings.

Associations Between Depression and ADL

There was a significant association between one of the ADL items, grooming, and depression. By maintaining one's personal appearance, grooming is linked to better interpersonal relations, and is said to be necessary when attempting to obtain acceptance by others socially (Mori & Sato, 2005). Being assisted with grooming appears to decrease opportunities to look in the mirror and be aware of one's own image that result in a decline in concern about one's own appearance and about social trends, and may be linked to depression as well.

Significant associations with depression were observed for two of the categories of social cognition examined in this study: social interaction and problem solving. Since ability to become appropriately involved with others and to participate in groups is evaluated in the assessment of social interaction it appears difficult for persons with low social interaction scores to become skillfully involved with others. Thus, it is postulated there would be little involvement between residents, and they

would tend to be isolated. Since even previous research has led to reports that isolation and decreases in conversation with acquaintances are associated with depression (Kuroda & Sumida, 2002), it appears that decreases in social interaction may lead to depression. Problem-solving ability is assessed by evaluating the degree to which instructions are needed in everyday life. If the problem-solving score is low, that is, when numerous instructions are needed, it is difficult to think and act alone, and acting of one's own will declines. That is why low problem-solving scores are thought to be linked to a decrease in spontaneity, and why a significant association was found with depression. Furthermore, despite the fact that the MMSE scores were not found to be significantly associated with depression in this study, the results did show a significant association with social cognition. These findings suggested that abilities that require more complex cognitive and behavioral functions, not cognitive functions, such as orientation, and memory, are associated with depression.

Limitations of the Study

The first limitation is that all of the subjects were from a single institution, and the second limitation is that we did not have a big enough sample to perform multivariate analysis, which may have reduced the number of factors associated with depression. Third the information as to whether the subjects had a visual impairment, hearing disorder, or language disorder was taken from the charts. Finally, because this study was a cross-sectional survey, it was impossible to elucidate cause-effect relationships, for example, whether the items surveyed caused a tendency toward depression, or whether the presence of a tendency toward depression caused decreases in the survey items. A longitudinal study seems to be necessary to elucidate cause-effect relationships.

CONCLUSION

The results of this study showed that 50% of residents of a health care institution for the elderly exhibited mild to moderate depression, and having a visual impairment, hypochondriac symptoms, grooming ability, and social cognition ability were found to be significantly related to it. These results suggested that performing rehabilitative interventions focused on grooming and social cognition may prevent or mitigate the depression of residents of a health care institution for the elderly.

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Efficacy of Group Reminiscence Therapy for Elderly Dementia Patients Residing at Home: A Preliminary Report

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ABSTRACT. The purpose of this study was to conduct group reminiscence therapy by using cooking activities among elderly dementia patients and to assess its efficacy. We conducted reminiscence therapy for 11 patients in a total of 9 sessions, once a week, 60 minutes each. Evaluations were performed on three occasions: one week before the start of the intervention and one week and four weeks after completion of the intervention. No particular adverse events were noted during the conduct of the study. There were significant improvements in the patients' scores for cognitive function and in their behavior, and the improvement in cognitive function continued until four weeks after the intervention. Based on these results, it will be necessary to verify the efficacy by means of a

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INTRODUCTION

The core manifestations of dementia are cognitive impairment, primarily memory disorders, but secondary manifestations, such as affective disorders, including depression, anxiety, and decreased willingness to participate, cannot be ignored. They appear not merely to consist of reduced ability to perform activities of daily living or behavior disorders, such as loitering, but to be capable of leading to a decrease in quality of life (QOL). Because of this, psychological assistance and care that make it possible for elderly patients with dementia to spend their final years with greater dignity have become important tasks.

Reminiscence therapy is one psychosocial approach. By deliberately encouraging the elderly to reminisce about the past, with an empathetic and accepting attitude, reminiscence therapy encourages the elderly to re-evaluate their lives and strengthen their identity, as well as to improve their psychological stability and QOL (Butler, 1963). Reminiscence therapy was first advocated by Butler in the United States in the early 1960s, and was subsequently applied to maintaining and improving the mental health of the elderly by a variety of specialist personnel, primarily in the United States and the United Kingdom. In the beginning, it was conducted among elderly subjects without dementia, but in recent years it has come to be performed for persons with dementia as a means of activating their residual functions and stabilizing their affect (Bains et al., 1987; Goldwasser et al., 1987; Kiernat, 1979). However, little research on reminiscence therapy in elderly persons with dementia has accumulated. Although occasional reports suggest the efficacy in terms of affective function and cognitive function (Bains et al., 1987; Goldwasser et al., 1987), no consensus has been reached, and various tasks remain in regard to establishing the methodology of reminiscence therapy. Moreover, few studies have reported significant efficacy in terms of cognitive function, such as orientation. In many studies a variety of materials, tools, and activities, have been used to stimulate reminiscence

throughout a single session, and while some reminiscence studies have focused on music (Ashida, 2000), few have used a single means of stimulation throughout, and few have discussed the nature of the stimulation. First, it will be necessary to conduct reminiscence therapy focused on a single means of simulation and assess its efficacy in order to identify effective intervention methods.

Against this background, it is reported that changes in spontaneity and behavioral aspects, such as improvement in interest and participation in daily life or an increase in opportunity for interaction with others, were observed as a result of conducting cooking activities for female patients with dementia in a previous study (Ohshima et al., 1997). Since cooking stimulates all five senses, it would promote reminiscences, and since the actions involved in preparing food are activities that use procedural memory of habitual activities learned in the past, those activities themselves should serve as stimuli that further promote reminiscence. No reports of studies that have actually investigated cognitive function by reminiscence therapy that is embedded in a cooking activity were found. The purpose of the present study was to adopt a single activity, cooking, as a means of stimulation and to perform group reminiscence therapy using that single means of stimulation throughout all sessions and assess its efficacy in regard to affective function and cognitive function.

METHODS

Subjects

The subjects were elderly persons living at home who were using day care rehabilitation services at two institutions. The eligibility conditions were: (1) 65 years of age or over, (2) diagnosis of mild to moderate dementia by a psychiatrist, (3) ability to participate in group activities, and absence of serious hearing disorders, vision disorders, or language disorders, and (4) consent of the patient's family.

Procedure

We conducted a group program for subjects who fulfilled the eligibility criteria. The sessions were carried out by using the kitchen, and the leader was an occupational therapist. Each group was composed of three to five subjects. The participants were told that an intervention

would be conducted that consisted of nine sessions, including an orientation, once a week, 60 minutes each, on the same day of the week, and at the same time of day.

Evaluations were conducted on three occasions: one week before the start of the intervention, one week after completion of the intervention, and four weeks after completion of the intervention. Participants who were absent from five or more of the nine sessions were considered dropouts.

Intervention Method

Nine sessions were planned, eight sessions plus one session that was also used for orientation (Table 1). The topics were arranged in sequence, and the stimulus materials (ingredients) were specified in advance so that they would seem related to the topics. It was decided that since the purpose was reminiscing, not the cooking activities themselves, it was unnecessary to perform the entire cooking procedure, and care was taken to conduct the sessions so as to finish within the allotted time.

Care was also taken to ensure that the content of the reminiscences would develop as a result of interaction among the members. Reminiscences were elicited by asking appropriate questions that would stimulate and encourage reminiscences. We developed the sessions by using supportive, receptive listening.

TABLE 1. Program of Group Reminiscence Therapy: Reminiscence Topics and Reminiscence-Stimulating Materials

Session no.	Topic	Menu	
1	Self-introductions/proverbs	None	
2	Hometown memories	Steamed potatoes	Green tea
3	Memories of playing	White flour dumplings dipped in soy bean flour	Green tea
4	Memories of school	Thick fried eggs	Green tea
5	Memories of the season (spring)	Boiled butterbur	Green tea
6	Memories of marriage	Potato wrapped in a fried tofu pouch	Cherry-blossom tea
7	Memories of home and work	Ivy sap mixed with yam	Green tea
8	Memories of trips	Rice balls	Cold tea
9	Overall review (the future)	Decorations Hotcakes	Green tea or coffee

Measures

Subjects' Characteristics

Age, gender, current living environment (living alone, living with others), and type of dementia were considered.

Cognitive Function

Hasegawa Dementia Scale-Revised. The Hasegawa Dementia Scale (HDS) was prepared by Hasegawa et al. (1974), and as a result of a revision in 1991 became better able to discriminate dementia (Kato et al., 1991). It is the test most widely used in Japan to measure cognitive function, and there are relatively few questions. It is characterized by convenience of use and use in a short time. The maximum score is 30, scores of 20 or under are used to diagnose dementia. Scores of 21 or more are used to rule out dementia.

Mini-Mental State Examination (MMSE). The MMSE was developed by Folstein et al. (1975) and is the most widely used test to measure cognitive function worldwide. Its reliability and validity have been confirmed. The MMSE is composed of 11 questions, and scores range from 0 to 30 points. Higher scores mean better cognitive function. A score of 20 or less means a strong possibility of dementia, delusions, schizophrenia, or emotional disorder. The cutoff point between dementia and non-dementia is usually set at 23/24 points (Mori et al., 1985).

Affective Function: Gottfries-Brane-Steen (GBS) Scale

The GBS scale can be used to evaluate both the severity of dementia and qualitative differences in dementia. Four areas can be evaluated by behavioral observations: motor function, intellectual function, emotional function, and mental symptoms. The assumption was that staff members who are very familiar with the subject's condition would perform the scoring. The GBS consists of 26 items in four areas: motor function (6 items), intellectual function (11 items), emotional function (3 items), and other manifestations common with dementia (6 items). They are scored on a 7-grade scale that ranges from "0 (normal)" to "6 (severest)." Higher scores mean worsening of mental and emotional aspects. Gottfries et al. (1989) confirmed its reliability in 100 dementia patients

and its validity in 70 nursing home residents. The reliability and validity of the Japanese version (GBSS-J) were verified by Honma et al. (1991) in 246 elderly Japanese persons with dementia. Although both overall scores and subscale scores on the GBS scale can be used for evaluations, because we especially intended to evaluate the subjects' mental status, we used the subscales in two areas, intellectual function and emotional function, in the analysis.

Behavioral Aspects: Troublesome Behavior Scale (TBS)

We used the Troublesome Behavior Scale (TBS), which was developed in Japan, to assess problem behavior and to evaluate frequency of problem behavior as an index. Asada et al. (1994) used the TBS to measure 313 patients, 146 patients residing at home, and 167 in hospitals or institutions, and confirmed its reliability and validity. The TBS is composed of 14 items, and can be used in any setting, such as home or an institution. Caregivers and nursing care staff submit the information and make their evaluations of severity on a 5-grade scale, ranging from "never (0)" to "one or more times a day (4)" based on observations over the previous month. In the present study we used estimated values of the standardized causality coefficient, calculated the total scores according to factor (Factor 1 = acts directed toward the caregiver; Factor 2 = acts in which the subject is self-absorbed; and Factor 3 = differentiated behavior), which were used in the analysis.

Statistical Analysis

Changes in the scores for the test items described above were subjected to a repeated-measures analysis of variance (ANOVA) in order to examine for changes in cognitive function, emotional function, and behavioral aspects between one week before the start of the intervention, one week after completion, and four weeks after completion of the intervention. A multiple comparison of the above evaluation items in which there were significant changes was then performed by the Dunnett method to examine for changes in scores between one week before the start of the intervention, one week after completion and four weeks after completion.

The p values in all tests were two-tailed, and p values < 0.05 were considered statistically significant. All statistical analyses were performed

with Statistical Package for the Social Sciences (SPSS) ver. 13.0J software.

Consideration for Ethical Aspects

After obtaining the approval of the Ethics Committee of each of the institutions, the purpose, methods, and content of the study, the fact that they could refuse to participate in the study at any time, and that privacy would be strictly maintained was explained to all of the subjects. In addition, because the subjects had dementia, the same explanation as above was given to their families in writing, and only the subjects from whose family consent was obtained were adopted as subjects of the study.

RESULTS

Subjects' Participation in the Study

Since one of the 12 persons who fulfilled the eligibility criteria dropped out because of poor physical health after the intervention had started, the evaluation one week after completion of the intervention was conducted on 11 subjects. None of the subjects dropped out before the follow-up four weeks after intervention, and thus there were 11 subjects in the final analysis, whose characteristics at baseline are shown in Table 2.

Changes in Cognitive Function, Affective Function, and Behavior

Changes in scores for cognitive function, affective function, and behavioral aspects between one week before and one week and four weeks after completion are shown in Table 3. The results of repeated measures ANOVA of the changes in individual scores revealed significant changes in the HDS-R and TBS Factor 1 scores.

Multiple comparison revealed significant changes in the HDS-R both one week after completion ($p = 0.043$) and four weeks after completion ($p = 0.043$). A significant change was observed in TBS Factor 1 at one week after completion of the intervention ($p = 0.004$), but not at four weeks after completion of the intervention ($p = 0.062$).

TABLE 2. Subjects' Characteristics (N = 11)

	N or Mean ± SD[a] (range)
Age (years)	88.5 ± 4.9
Gender	
Male	3
Female	8
Type of dementia	
Alzheimer disease	3
Vascular dementia	8
Current living environment	
Living alone	0
Living with others	11
HDS-R[b]	10.3 ± 4.6
MMSE[c]	14.2 ± 4.7
Number of times the subjects participated	8.0 ± 1.1(5.0 – 9.0)

[a]Standard Deviation.
[b]Hasegawa Dementia Scale-Revised.
[c]Mini-Mental State Examination.

DISCUSSION

Subjects' Participation in the Study and the Feasibility of the Program

There was only one dropout after the start, and that was because the subject did not feel well. The mean number of times subjects participated was high: eight times. One subject participated, five times, but that was because the patient was admitted to the hospital during the middle of the intervention, not because the patient refused. There was a strong possibility of participation being refused because the activity was cooking, which tends to evoke a negative image, such as making patients wonder whether they will be able to use a kitchen knife safely. However, since the men in the present study who had experience with cooking vigorously engaged in cooking, and the men with no experience with cooking played the role of "people who will eat for us," the sessions proceeded smoothly. It was possible to perform the activities safely, with no behaviors or actions in the cooking settings that seemed

TABLE 3. Results of Repeated Measures Analysis of Variance on HDS-R, IES-R, MAC Scale, and QLQ-C30

	1 week before the start of the intervention	1 week after completion of the intervention	4 week after completion of the intervention	Time	
				F value	p
HDS-R[a]	10.3 ± 4.6	12.8 ± 5.5	12.8 ± 6.6	4.02	0.034
MMSE[b]	14.7 ± 4.7	16.4 ± 3.8	16.0 ± 5.0	2.71	0.091
GBS[c]					
Intellectual function	12.3 ± 9.3	12.0 ± 10.6	10.2 ± 7.5	1.36	0.279
Emotional function	1.8 ± 1.5	2.0 ± 2.1	1.8 ± 2.0	0.08	0.917
TBS[d]					
Acts directed toward the caregiver	5.0 ± 5.3	3.1 ± 4.3	3.8 ± 4.9	6.28	0.008
Acts in which the subject is self-absorbed	2.1 ± 2.3	1.9 ± 2.0	2.2 ± 2.4	0.39	0.677
Differentiated behavior	−0.1 ± 0.4	−0.2 ± 1.0	−0.4 ± 0.8	1.13	0.325

[a]Hasegawa Dementia Scale-Revised.
[b]Mini-Mental State Examination.
[c]Gottfries-Brane-Steen Scale.
[d]Troublesome Behavior Scale.

dangerous. Based on the above, participation in this program is feasible, and the results suggested that there are no great obstacles or problems to conducting this program.

Efficacy of the Intervention

We conducted group reminiscence therapy using cooking as a means of stimulation for elderly persons with dementia who were utilizing day care services, and assessed its efficacy in terms of affective function and cognitive function. The results suggested it may have been effective in terms of cognitive function and behavior. Moreover, although the efficacy of group reminiscence therapy, in terms of behavior, had diminished four weeks after completion of the intervention, the improvement in cognitive function persisted until four weeks. Although many previous studies

have reported improvement in affective function as a result of reminiscence therapy, few studies have used objective evaluations of cognitive function. In addition, while there have been reports of observations of changes in cognitive function before and after interventions (Hitch, 1994), none of the studies have investigated the persistence of their efficacy after the intervention. In the present study we followed up four weeks after the intervention. The results that showed improvement in cognitive function until four weeks after the intervention seem to be meaningful from the standpoint of assessing effective intervention methods in clinical settings.

Reminiscence therapy is reported to raise the arousal level of elderly persons with dementia through past memories or evoked affects and to stimulate and activate residual functions (Pittiglio, 2000). On the other hand, cooking is said to be one of the intellectual activities that uses the frontal lobe, and it is an activity that uses continuous memory as well as episodic memory, attention-splitting function, and planning ability (thinking ability). There have been reports stating that it is possible to reduce problem behavior by attempting to improve care deliberately using continuous memory that had been maintained (Camberg et al., 1999). Reports that, since past procedural memory (memory of cognitive and motor skills) often remains, ordinary cleaning or cooking provides good stimuli (Egan, 2006). Therefore, it was speculated that having incorporated the work properties and therapeutic efficacy that cooking (cooking activity) offers, into reminiscence therapy in the present study, lead to evoking memories more easily and to improving cognitive function as a result. However, this study is a pilot, and did not definitively proved the effect of the intervention. It will be necessary to verify the efficacy by means of a randomized controlled study in a larger number of patients.

Cognitive function disorders in elderly persons with dementia increase anxiety and confusion as the dementia progresses, which appears to be a major factor in increasing friction between the patients and their surroundings. Improvement in both cognitive function and behavioral aspects was observed in the present study, and it appeared that anxiety and confusion were alleviated by improving cognitive function, which are the core manifestations of dementia, and that alleviating them may have been linked to the alleviation of the behavior disorders, which are said to be secondary manifestations. On the other hand, the decrease in efficacy against the behavioral aspects at the follow-up examination four weeks after completion of the intervention suggested that the program needed to be continued.

Limitations of the Study

First, because of the small number of subjects in this study and the fact that only a couple of institutions participated, it is difficult to generalize the results. Moreover, since no control group was established, it is impossible to conclude anything more than that the intervention program may be effective. It will be necessary to assess the efficacy of the program by means of a randomized controlled study after obtaining participation by a large number of subjects and institutions and reassessing the evaluation items. It will also be necessary to prepare a program that is reliable and valid based on the present study. However, because the results of this study suggested the possibility of using cooking to implement reminiscence therapy and its efficacy in regard to cognitive function and behavioral aspects in elderly persons with dementia, they pointed to the possibility of being able to use this method as a means of improving the QOL of the elderly with dementia.

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特集 がん疼痛治療をめぐる薬物療法の最近の話題

オピオイド導入時のノウハウ

木澤義之*

はじめに

日本人の1/3ががんで死亡する時代であり，また進行がん患者において，疼痛の発生率は約80%といわれている。したがって，がん性疼痛のマネジメントは「一般的でありふれた病態」であり，がん診療に携わる医師やプライマリケアを担当する医師が身につけておくべき基本的な能力であるということができる。本稿ではがん性疼痛を持つ患者への実践的な対応方法とオピオイドの導入時のノウハウについて述べる。

1. がん性疼痛に対する薬物療法の基本

がん性疼痛に関するガイドラインとしては，WHOのガイドライン[1]，EAPCのガイドライン[2]，AHRQ：Agency for Healthcare Research and Quality(旧AHCPR)などのガイドライン[3]がよく知られている。この中でも，WHOのガイドラインはWHO方式がん疼痛治療として世界標準のがん疼痛の治療法となっており，表1に示す3つの要素から成り立っている。この3つの要素をそれぞれ理解，習熟することで，がんの痛み約90%はコントロール可能であるといわれている[1]。各要素を1つずつ概説する。

1) 5つの基本原則

5つの基本原則を表2に示す。薬物療法は，できるだけ患者が苦痛のない方法である経口投与で(by mouth)，がん性疼痛は慢性疼痛であるため，頓用処方は避け，時刻を決めて規則正しく(by the clock)，次項に示すラダーにしたがって痛みの強さに応じて段階的に(by the ladder)，オピオイド，時にモルヒネは天井値がなく，個人によって必要な用量が異なるため，徐々に増量減量を繰り返して患者に適切な量を求めること(for the individual)が重要である。また，薬剤の副作用対策，患者の心理への配慮，疼痛時臨時服用量の指示，服薬指導などの細かい配慮(with attention to detail)が患者のQOL向上に非常に有用である。

2) 三段階除痛ラダー

図1に示す三段階除痛ラダーにしたがって痛みに応じて段階的に薬物療法を行うことが重要である。ここで重要なポイントは，中等度，高度の痛みに対してはNSAIDsとオピオイドの併用が原則であることである。がんの痛みはその原因が複数であることが多く，またその鎮痛メカニズムが異なるため，NSAIDsとオピオイドは互いに相補的に働き疼痛緩和に寄与する。また，オピオイドとNSAIDsを併用することで，オピオイドの総投与量を減らすことができること，便秘などの副作用が減少することが明らかとなっている[4]。

3) WHO基本薬リスト

表3はWHOガイドラインに示された疼痛コントロールのための薬物リストである。ここに示した約20種類の薬物使用法に習熟するだけで，がんの痛みの約9割はコントロール可能である。

2. 副作用対策

WHOのガイドラインでも，EAPCのガイドラインでも第1選択のオピオイドはモルヒネとされている。モルヒネの導入時に最も困難であるのはその副作用対策である。モルヒネの副作用としては表4のものが知られている[5]。これらのうちで最も頻度が高く，事前に対応が必要であるのが便秘(ほとんど全例)と嘔気・嘔吐(約2/3)である。

1) 事前のアセスメント

副作用の対策を行う前に，腎機能は必ずチェックする必要がある。モルヒネの代謝物質であるM6Gは腎障害が起こると体内に蓄積し，意識障害や呼吸抑制などオピオイドの加療症状を引き起こすため[6]，腎障害時にはモルヒネの投与は禁忌

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表1　WHO方式がん疼痛治療

1) 5つの基本原則
2) 三段階除痛ラダー
3) WHO基本薬リスト

表2　5つの基本原則(文献1より改変引用)

①できるだけ経口的に(by mouth)
②時刻を決めて規則正しく(by the clock)
③痛みの強さに応じて段階的に(by the ladder)
④一人一人に適切な量を求めて用いる(for the individual)
その上で，細かい点にも配慮して(with attention to detail)

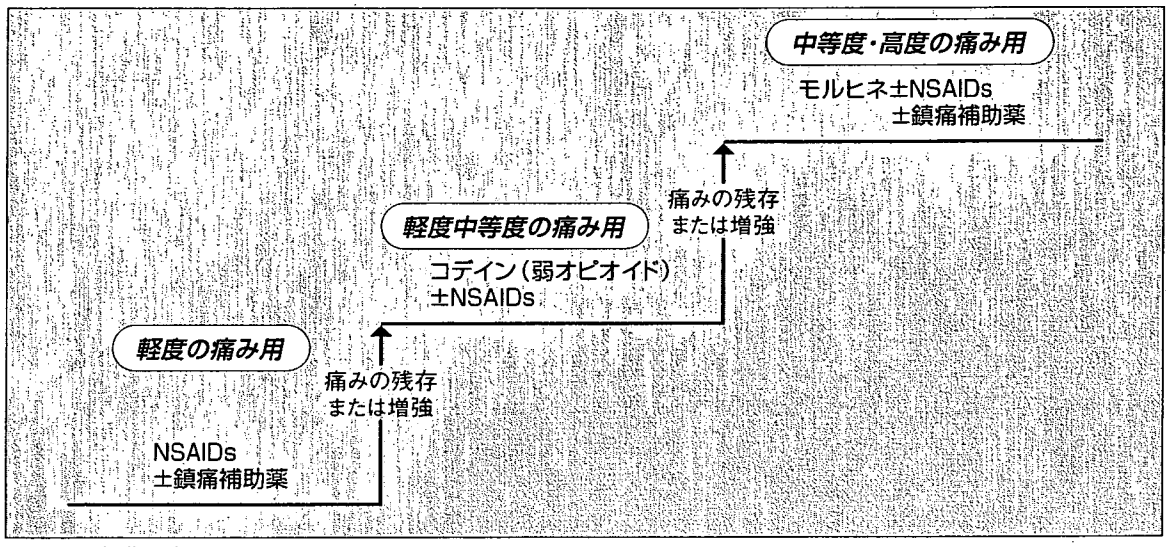

図1　三段階除痛ラダー(WHO 1987, 1993より改変引用)

であると考えたほうがよい。

2)副作用のマネジメント方法

副作用のマネジメント方法は以下の4つである[5]。

①オピオイドの減量

②薬物療法

③オピオイドローテーション

④投与経路の変更

本稿ではこのうち薬物療法を中心に概説する。

オピオイド投与開始時に事前に予防が必要な副作用は前述したとおり便秘と嘔気・嘔吐である。

便秘は，消化管蠕動低下と肛門括約筋の収縮がその主たる原因である。緩下剤のうちセンナやナロキソンの有効性は証明されているが，何が最も有効かということを検証した研究は存在せず，推奨はあくまで経験的に行われている[5]。経験的には塩類下剤と腸管刺激性下剤の併用が推奨されており，筆者はラクツロース15～30mL分3とピコスルファートナトリウム5～40滴/日(量は適宜調整)を使用している。

嘔気・嘔吐は，オピオイドによる化学受容器の直接刺激および消化管蠕動低下による胃内容停滞により引き起こされる。制吐剤はそのメカニズムに準じて経験的に使用されているが，何が最も有効かということを検証した研究は存在しない。一般的にはプロクロルペラジン3T分3の使用を推奨しているものが多い。これはプロクロルペラジンがドパミンおよびヒスタミン受容体の拮抗作用を持っているためである。その他よく利用されるものとしてはハロペリドール0.75～1.5mg分1眠前があり，動作時の嘔気・嘔吐に対しては抗ヒスタミン薬が処方されることが多い。

表3　WHO基本薬リスト(日本で販売されている，もしくは今後発売される予定の薬剤のみ抜粋)

群	基本薬	代替薬
非オピオイド	アスピリン アセトアミノフェン イブプロフェン インドメタシン	ナプロキセン ジクロフェナク
弱オピオイド	コデイン	オキシコドン (経口薬として10mg/日)
強オピオイド	モルヒネ	ブプレノルフィン フェンタニル オキシコドン
オピオイド拮抗薬	ナロキソン	
抗うつ薬	アミトリプチリン	イミプラミン
抗けいれん薬	カルバマゼピン	バルプロ酸
コルチコステロイド	プレドニゾロン デキサメタゾン	プレドニン ベタメタゾン

表4　オピオイドの頻度の高い副作用(文献5より)

消化管	嘔気 嘔吐 便秘
自律神経	口渇 排尿困難 起立性低血圧
中枢神経	傾眠 認知障害 幻覚 せん妄 呼吸抑制 抑うつ ミオクローヌス けいれん発作
皮膚	かゆみ 発汗

3. オピオイド導入時のノウハウ

まずはNSAIDsで十分に鎮痛されない痛みであることを確認する必要がある。また，オピオイド処方時には，①NSAIDsと併用し，②患者に服薬方法と作用，副作用を十分に説明し，③便秘と嘔気に対する副作用対策をして導入すること，④痛みの増強に対する臨時内服量(レスキュードーズ)を指示しておくことが肝要である。また，オピオイドとして何を選択するかということであるが，WHOやEAPCガイドラインによれば，弱オピオイドの投与ということになるが，今までオピオイドを投与されたことがない患者に対して低用量の強オピオイドを投与することの安全性と有効性が確認されてきており[7]，速放性のモルヒネ製剤や低用量のオキシコドン徐放剤や塩酸モルヒネ徐放剤からオピオイドを開始することが可能である。

4. 薬物療法の実際

以下に，がん性疼痛を持つ患者に実際どう薬物療法を行うかの実践的な方法を示す。

(1)NSAIDsを使用し1日反応を見る。

処方例：ナプロキセン600mg 2×
ミソプロストール 2×

＊1日見て反応なければその後に効果が出ることは少ない。躊躇なく次のステップに進む。

(2)効果不十分ならばNSAIDsにオピオイドを加える(必ずNSAIDsは併用する！)

①モルヒネ水を投与する。

塩酸モルヒネ10mgと単シロップ2mLに水を加

えて10mLとする。

12mL 5×，眠前のみ倍量投与。

(2-2-2-2-4：6時，10時，14時，18時，22時)

☆疼痛時モルヒネ水2mL頓用。1時間あけて使用可。

＊必ず疼痛時臨時服用量(レスキュードーズ)を指示しておく。量は1回服用量と同量とし1時間あけて可。

＊オキシコドン徐放剤で開始する場合は10mg 2×で開始し，レスキュードーズはオキシコドン塩酸塩散2.5mg/回とし，モルヒネ徐放剤で始める場合は20mg 2×より開始し，レスキュードーズは塩酸モルヒネ水3mg/回とする。

②必ず下剤と制吐剤を同時に処方する。

処方例：ラクツロース15mL 3×

プロクロルペラジン3T 3×

＊便秘：まずラクツロース15mL 分3を投与し，60mL 分3までで適宜用量調整する。また，消化管蠕動が弱いときにはピコスルファートナトリウム10～40滴眠前を併用し，5滴程度ずつ適宜増減する。3日間便が出ないときは，便の存在を腹部単純X線写真で確認し，浣腸，坐剤，摘便など積極的な便処置が必要である。

＊嘔気：大部分は服用開始後1週間で消失するため，内服も中止できることが多い。第一選択薬はプロクロルペラジン，それが有効でないときはまず抗ヒスタミン薬(ヒドロキシジンなど)を併用する。経口摂取不可能となった場合は，ハロペリドール(1/4～1/2A)の眠前1回投与，プロクロルペラジン1日3A 分3での点滴静注を行う。

③1日反応を見てオピオイドの量を調節する。

モルヒネの量の調節は，眠気と痛みに注目して行う。増量は1.5倍が原則である。

[1]痛み(－)，眠気(－)：現状維持

[2]痛み(－)，ひどい眠気(＋)：オピオイドを2/3に減量。

[3]痛み(＋)，眠気(－)：オピオイド増量。モルヒネ1日量として120mgまでは1.5倍ずつ増量。120mg超は20～30%増とする。

(30-40-60-90-120-150-180-240-300mg)

[4]痛み(＋)，眠気(＋)：数日たって眠気が改善しなければオピオイドローテーションを考慮。

＊痛みに変化がなければモルヒネが無効な痛みを考慮に入れる。

④オピオイドの量が安定したら同量のオピオイド徐放剤やオキシコドン徐放剤に変更する。

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