

特 集

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# 患者の立場に立った BPSD 対応法

遠藤英俊, 佐竹昭介, 平野 優

抄 録

患者の立場に立った BPSD 対応法については、患者の脳障害の程度・部位に左右されることはいうまでもないが、本人の行動の原因を推定することが重要となる。そのためには BPSD をもつ患者の訴えを傾聴し、対話することが重要である。そのためには心理的アプローチやスピリチュアルケアが重要な方法となる。

Key words : BPSD, 対応法, 家族, 傾聴, スピリチュアルケア

老年精神医学雑誌 26; 1253-1257, 2015

はじめに

認知症に伴う行動・心理症状 (behavioral and psychological symptoms of dementia ; BPSD) は認知症高齢者の日常生活に影響を及ぼし、高齢者の生活の質を著しく低下させる。しかしながら、認知症ケアの BPSD に対する効果についてのエビデンスは十分ではない。認知症への非薬物療法として、音楽療法や現実見当識訓練、動物介在療法、人形療法、化粧療法などさまざまな取組みがある。これらの非薬物療法の効果は一定程度存在する。しかし少なくとも非薬物療法の原則は楽しくでき、かつ継続ができることである。いわゆる脳への快刺激となるものがよいと考えられる。その結果として、BPSD への対応は良好となる。

本稿では、まずは BPSD が起きる原因を考え、傾聴と対話により、患者の視点で対応する手立てを紹介する。

1 認知症の BPSD

認知症の BPSD とは、図 1 に示すように、記憶障害や見当識障害に基づく不安や混乱から生じるさまざまな生活不適応な症状のことをいう。最近では、この BPSD は薬物療法のみならず、よい環境やケアにより治療が可能であると考えられるようになってきている。またその予兆をとらえ、よい対応やケアによって BPSD の予防も可能であると考えられている。

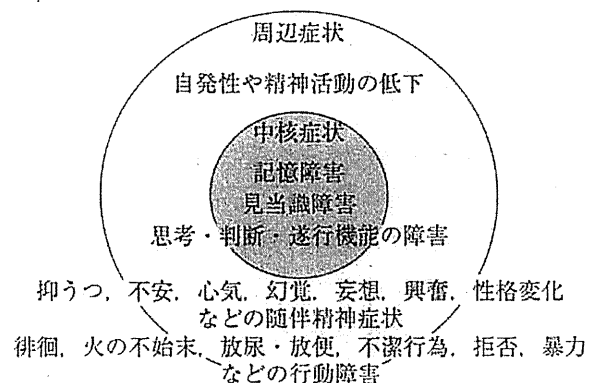
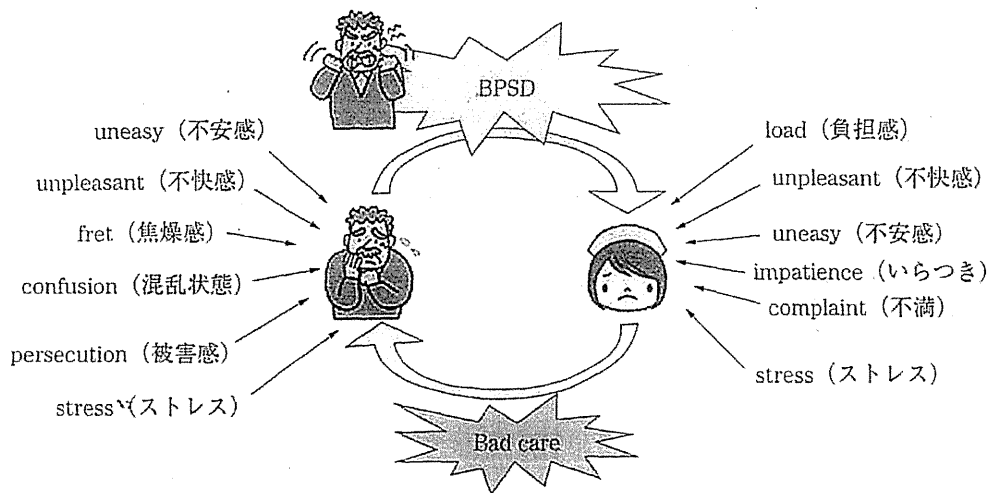


図 1 BPSD (認知症に伴う行動・心理症状) とは

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(加藤伸司：痴呆による行動障害 (BPSD) の理解と対応. 高齢者痴呆介護実践講座Ⅱ, 152, 第一法規, 東京, 2002)

図2 認知症高齢者と介護者との間に起こる悪循環

## BPSD とケア

### 2 — 患者の視点からの BPSD 対応の重要性 —

よいケアとは、衣食住の介護にとどまらず、心身のケアを含むことであり、認知症の人に対する個別ケアにより、適正な介護を提供することである。とくに認知症のケアにおいては、抑うつ、不安、心気、幻覚、妄想、興奮、徘徊、不潔行為、介護拒否、暴力等に対して、多職種のチームでその BPSD が軽減できるように支援することである。すなわち「パーソン・センタード・ケア」の実践において、それぞれの症状にどのように対応するかが重要である。そのためには安らぎ、愛情、タッチ、承認、笑顔などが重要な要素となる。すなわち対応次第で、BPSD は軽減できるのである。

BPSD をケアするうえで、家族によるサポートが認知症の人の地域ケア (community care) の鍵となる。責任を負っている家族と認知症の人との情緒的関係が、在宅介護を続けていけるかどうかを大きく左右する。また有効な介護システムがあれば、家族は自宅で認知症の人の介護を続けていくことができ、同時に認知症の人への悪影響も最小限に抑えられる。さらに介護の技能を高めれば、

在宅介護を長く持続させることができ、患者と介護者の双方の QOL (クオリティー・オブ・ライフ、生活の質) を高めることもできる。BPSD を起こす背景を理解せずに BPSD を考えると、認知症の人を全人的にみるのではなく、症状の集積としてみることになりかねない。介護者の苦痛や不満、患者との不良な人間関係は、BPSD を増悪させることがある。介護者は行動異常の誘因や、考えられる原因について有用な情報を提供することができる。発症前において患者との関係がよくなかった介護者は、焦燥や苛立ちを意図的な挑発と誤解し、怒り返して状況を悪化させることがある。すなわち、BPSD には以前の性格や人間関係も大きく関与している可能性があり<sup>2)</sup>、患者の立場を考慮することが原点となる。

BPSD は認知症患者の生活の質を低下させ、介護者の介護負担を増大させる主たる要因であるが、残念ながら適切な治療法は確立されていない。認知症高齢者と介護者との間に起こる悪循環について図2に示した。この悪循環を理解して、逆に好循環にすることで、BPSD の対応法がみえてくる。つまり介護者においては、BPSD の悪化を防ぐための教育・理解が必要である。また患者の診療経過を評価し、医療とケアの連携における問題

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点、ケア施設で対処困難な BPSD の明確化が重要である。そのためには BPSD 治療・ケアマニュアルを組み入れた連携クリニカルパス（以下、連携パス）が有用である。また認知トレーニングと創作活動の2種類の非薬物的治療法の BPSD に対する効果も期待される。連携パスの使用により BPSD の治療が適切に行えるようになり、かつ患者の治療に関する情報が連携する施設間で共有できるため、認知症患者の予後や生活の質の向上、および介護者の介護負担が軽減すると予想される。また在宅介護期間が伸びるため、医療経済効果も得られる。さらに非薬物的治療法の患者の適応基準が明確になるため無効な非薬物的治療が抑制されることから、テーラーメイド医療にもつながる。

### ③ 心理的ケア・スピリチュアルケア

#### 1. 回想について

アメリカの老年精神医学者であるロバート・バトラー教授 (R. Butler) は、高齢者にとって回想することは価値があり、必要なものであることを初めて述べた。彼の理論は、高齢者においても成長を認めるというエリクソンの発達理論に基づいている。回想により、過去の経験を再評価し、成功、失敗といった経験をすべて見渡せ、成功したという人生観によって、人生が価値あるものととらえられ、過去の執着や失敗から立ち直らせ、自我の統合と絶望の葛藤の解決が得られる可能性がある。バトラーは、高齢者には、自我の統合に達するために、熟練した療法士やグループの援助が必要なことがあると述べている。バトラー以来、回想に関してさまざまな理論が出てきているが、まだはっきりしないことも多い。しかし、バトラーの言う「人生を振り返る回想」に加えて、楽しみや情報を共有する「単純な回想」も高齢者には重要である。回想のなかで承認し、統合し、方向づけ、結びつけることにより、高齢者の生活は再統合される。高齢者は、回想により自分の存在を確認し、時間の概念を正し、若い世代を導く責任を果たし、周囲との関係を理解する。回想の効

果についての研究成果は十分ではないが、最近の回想に関する文献は、回想の治療的効果、用いる回想の種類、対象の性格、回想が有効な環境についてまで踏み込んでいるものがある。有効性をさらに証明できる再現性のある研究が待ち望まれている。回想法には大きく分けて集団回想法、個人回想法があるが、地域で回想法を3年間継続したグループでは認知機能が有意に改善し、継続しなかったグループでは認知機能が悪化していた。こうした研究成果は少しずつ報告されてきている。

#### 2. 認知症の人に行う回想法

回想法は認知症の非薬物療法のひとつであるが、認知症の軽度・中等度の人にはその効果が期待され、精神的な安定を図り、人的交流を促進することで、BPSD の軽減にもつながる可能性がある。

回想法は多くの人が定義を行っているが、基本的には過去を振り返るプロセスである。その過去とは、一つの記憶、あるいは一連の記憶の集まりから成り立っている (ギブソン, 1998 年)。回想法は最初に 1960 年代に前述のロバート・バトラーが「ライフレビュー」(life review) として紹介した (バトラー, 1995 年)。バトラーはライフレビューを、死に向かっていることに気づくことで得られるごく自然な振り返りのプロセスだとみなした。それはノスタルジアや、軽い後悔、そして語り (ストーリーテリング) として現れる。そのような後悔の念から不安やうつ、絶望が生じることもあるが、ライフレビューでは、自分の人生の物語を語る人が自分の人生の意味と目的を深く理解できるように補佐する。これによりある種の BPSD は軽減もしくは消失することが可能であると考えられている。

また一方でライフレビューは、その人が成し遂げた業績を振り返り、過去のまちがいを正し、敵と和解し、死ぬ準備をする機会を与える (バトラー, 1995 年)。しかしバトラーはライフレビューを行うことがいつでも勧められているわけではないと感じた。昔を懐かしむノスタルジックな感情をもつことは「過去に生きていること、自分

表1 回想法の利点 (ギブソンによる)

- ・一貫性および継続性の感覚を促す
- ・社会性を促し、新しい関係性を開く
- ・個人のアイデンティティーを確認し、自尊心の感情を励ます
- ・ライフレビューのプロセスを補助する
- ・介護の関係性の本質を変え、職員の開発に貢献する
- ・現在の機能についてアセスメントを行い、管理ケアプランを伝える
- ・知識、価値、知恵の伝達を助け、それを証言する

のことばかり考えていること」なのだ」と、高齢者は教えられてきたからである (バトラー, 1995年, xvii). バトラーはこのような態度に反対して、ライフレビューは自然な癒しのプロセスの一部とみなされるべきだと主張した。最近では、家族史や郷土史、口述歴史を創り、維持するという考え方が多くなったため、回想は否定的ではなくむしろ肯定的な活動としてとらえられるようになり、教育的、社会的、レクリエーション的、セラピー的な価値のある活動として認識されている (ギブソン, 1998年). フェイス・ギブソン (Faith Gibson) は、高齢者に対して回想法を用いる価値とその実用性について幅広く記述している (2004年). 彼女は過去30年にわたりライフストーリーと回想のすべての要素を実践し、多くの高齢者の生活の質を向上させてきた。ギブソンは回想法の利点について、表1のように示している。

興味深いのは、回想法は職員と高齢者の両方を支援することができる点である。さらに筆者らはオーストラリアのエリザベス博士らが開発した、スピリチュアル回想法について実践と研究を開始した。スピリチュアル回想法のプロジェクトでは、回想はたしかに高齢者介護施設で関係性をつくれるように促し、高齢者の心理的な側面を支援することがわかった。また回想により引き出されたストーリーは、介護する人と入所者の介護の関係を広げ、お互いの理解を深めた。入所者を個人として知るようになると、入所者に対する見方とケアの提供の仕方が変わる。介護する人

表2 スピリチュアル回想法の利点

- ・一貫したアプローチを保ち、時間をかけて信頼を築く
- ・お互いの喜びと楽しみを強調する
- ・スピードを落とし、(高齢者が) 答えを出して伝えるための時間をとる
- ・こちらがイニシアチブをとって、手を差し伸べ、つながりをつくり、維持する
- ・気分、活気、興味の変化を読み取り、対応する
- ・きっかけづくりを活用するなら、その人の経験と過去に興味があったことに合わせる
- ・非言語による活動を強調する
- ・ストーリーは疑うよりもまず信じ、自分の判断を保留する
- ・象徴的な会話を読み解く努力をする
- ・その人が語るストーリーの感情の部分に対応する
- ・認知症の人の世界に入り込み、その人の経験を認められるように、心の準備をする
- ・アプローチに対して柔軟になり、さまざまに変えられる用意しておく
- ・つねに同意を求め、敬意を表すこと

(ギブソン, 2004年, p. 247より)

の目からみた入所者のそのようなアイデンティティーについて、クリスプ (2000年) は非常に重要であると説いているが、ストーリーはそれを入所者に授ける助けとなったのである。

ギブソンは2004年に、認知症高齢者に回想法を行う際の一般的な手引きを提示した。この手引きはスピリチュアル回想法のグループをつくる場合も同様に重要となる (表2)。

### 3. スピリチュアル回想法の効果<sup>3)</sup>

認知症高齢者のケアの日常は、身体的なケアの処理に落ち込んでしまいがちなことがよくあり、心理社会的なケアやスピリチュアルケアが犠牲になりかねない。たしかに職員の人手が足りないのに高いレベルのケアが必要な高齢者がいる忙しい状況では、物理的なニーズが優先され、その部分に最初に対応せざるを得ない。そのうえでまだ時間があれば、ほかの部分のケアに充てることもできるのであろう。しかしながら、ホリスティックなケアを行わなければならないと思うならば、高齢者の身体的、社会的、心理的、そしてスピリチュアルなニーズに気づかなければならない。スピリチュアルなニーズはほかのニーズと同じぐらい

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重要なものである。ある高齢者ケアの責任者は、自分の仕事の3/4は嘆き、罪悪感、怖れに関することである、と言ったほどである。これらは明らかにスピリチュアルな領域の問題である。

スピリチュアルケアを行うことは、スピリチュアリティという概念——つまり中核となる意味、いちばん深い人生の意味と関係性——に入り込むことになる。スピリチュアリティというものを、神や崇高な存在との関係性で表現する高齢者もいるであろうし、自然や環境、家族、友だちなどを通して表現する高齢者もいるであろう。スピリチュアリティとは、私たちという存在のいちばん中心にある肝心な部分であり、私たちはそこから人生のすべてに反応、応答していく、そして怒り、憎しみ、愛、許し、希望は、この核の部分から生じるのである。


 おわりに

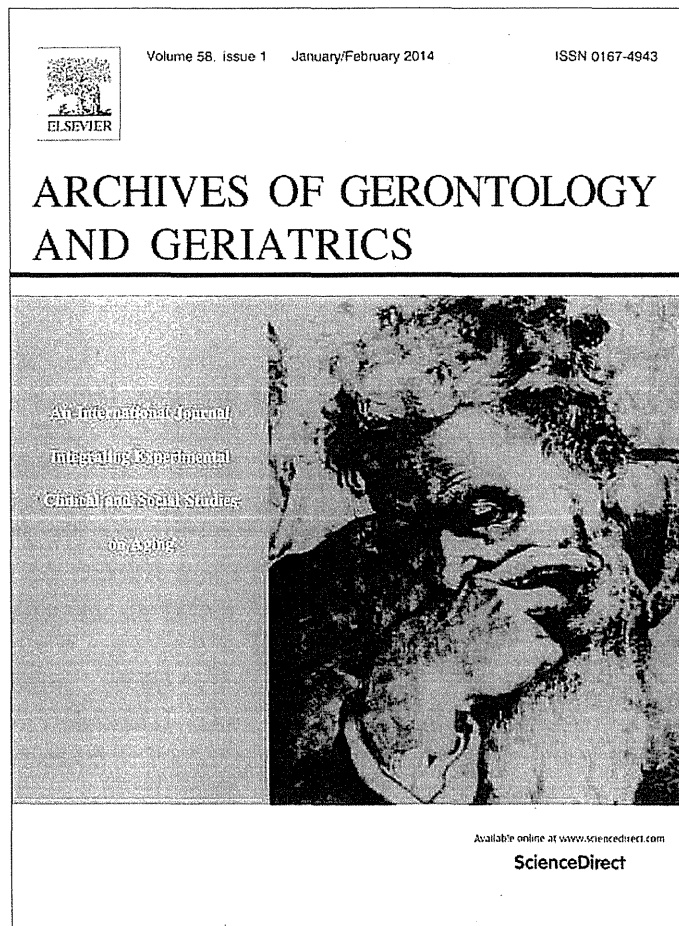
患者の立場、視点を理解することから、BPSDの対応法はみえてくる。たとえば回想法はもとも

と心理療法のひとつであり、その実践において、さまざまな効果が報告されている。回想法は精神的に、心理的に落ち着きを取り戻し、認知症になっても精神的な安定を得ることができる一つの方法である。さらにデータを積み重ねてBPSDに対する効果も根拠をもって示せるようになることを期待している。

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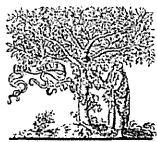


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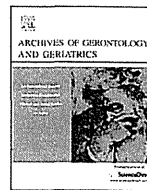
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## Burden reduction of caregivers for users of care services provided by the public long-term care insurance system in Japan



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## ARTICLE INFO

## Article history:

Received 28 May 2013

Received in revised form 24 August 2013

Accepted 29 August 2013

Available online 7 September 2013

## Keywords:

Long-term care insurance

Care burden

Caregivers

## ABSTRACT

We surveyed the care burden of family caregivers, their satisfaction with the services, and whether their care burden was reduced by the introduction of the LTCI care services. We randomly enrolled 3000 of 43,250 residents of Nagoya City aged 65 and over who had been certified as requiring long-term care and who used at least one type of service provided by the public LTCI; 1835 (61.2%) subjects returned the survey. A total of 1015 subjects for whom complete sets of data were available were employed for statistical analysis. Analysis of variance for the continuous variables and  $\chi^2$  analysis for that categorical variance were performed. Multiple logistic analysis, was performed with the factors with  $p$  values of  $<0.2$  in the  $\chi^2$  analysis of burden reduction. A total of 68.8% of the caregivers indicated that the care burden was reduced by the introduction of the LTCI care services, and 86.8% of the caregivers were satisfied with the LTCI care services. A lower age of caregivers, a more advanced need classification level, and more satisfaction with the services were independently associated with a reduction of the care burden. In Japanese LTCI, the overall satisfaction of the caregivers appears to be relatively high and is associated with the reduction of the care burden.

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### 1. Introduction

The public long-term care insurance (LTCI) system was introduced in 2000 to meet the increasing need for elder care in the rapidly aging society of Japan (Tamiya et al., 2011). LTCI provides services according to care levels 1–5 and support levels 1 and 2 (Ozawa & Nakayama, 2005; Tsutsui & Muramatsu, 2007). The individuals who need continuous care are classified into one of the care levels 1–5 according to their mental or physical disabilities, whereas those who need support for daily activities but do not need care are classified as support level 1 or 2.

The purpose of LTCI is to maintain the dignity and independent daily life routines of elderly individuals who need support. The socialization of elderly care through institutional and community-based LTC services was promoted under the slogan “from care by family to care by society.” The introduction of LTCI was intended to relieve the burden of care on family members. It has been reported that usage of LTCI care services successfully relieves the burden on family caregivers (Kumamoto, Arai, & Zarit, 2006; Nakagawa & Nasu, 2011). One study showed that a heavier care burden was

associated with patient mortality and hospitalization (Kuzuya et al., 2011), and another study demonstrated that alleviation of the caregivers' burden is essential to prevent institutionalization (Oyama et al., 2012). The factors associated with the reduction of the care burden by the introduction of care services by LTCI have not been fully investigated.

A study from the USA reported that the claimants of LTCI provided by a private insurance company had high levels of satisfaction (Cohen, Miller, & Weinrobe, 2001). The degree of satisfaction may reflect the appropriateness of the services provided. An investigation of satisfaction with the services provided by public LTCI in Japan is warranted.

We surveyed family caregivers of the recipients who actively use LTCI care services in Japan and asked about their care burden, their satisfaction with the services and whether their care burden was reduced by the introduction of the LTCI care services. The primary purpose of this study was to investigate the factors associated with reduction of the care burden by LTCI care services.

### 2. Methods

This study was carried out in Nagoya City, in central Japan. Nagoya City has a population of 2,261,377 (April 2010), of whom

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21.4% were 65 years of age or older. This study was developed and organized by Nagoya City and was supported by the Department of Community Healthcare & Geriatrics of the Nagoya University Graduate School of Medicine. Written informed consent was obtained from all the participants. The city office randomly enrolled 3000 residents of Nagoya City aged 65 and over who had been certified as requiring long-term care and who used at least one type of service provided by the public LTCI in April of 2010, according to the LTCI database of the city (43,250 subjects). A questionnaire was sent to their principal caregivers by mail, and 1835 (61.2%) subjects returned the survey. The investigators obtained the anonymous data from the city office. In this study, the data of 1015 subjects for whom complete sets of data were available were used for the statistical analysis. The questionnaire for the caregivers included the Zarit Burden Scale short version (Zarit-8) (Kumamoto & Arai, 2004) and the following additional questions: (1) Are you satisfied with the services provided by LTCI? (satisfied, somewhat satisfied, somewhat dissatisfied, dissatisfied); and (2) Has the service reduced your care burdens? (reduced greatly, reduced, have not changed, increased, increased greatly). Analysis of variance for the continuous variables and  $\chi^2$  analysis for the categorical variance were performed. In the analysis of variance for the continuous variables and the  $\chi^2$  analysis, the two additional items were each divided into two categories: satisfied (satisfied and somewhat satisfied) vs. dissatisfied (somewhat dissatisfied and dissatisfied) and reduced (reduced greatly, reduced) vs. not reduced (not changed, increased, increased greatly). Multiple logistic analysis of the factors with  $p$  values of  $<0.2$  in the  $\chi^2$  analysis of the burden reduction was performed.

### 3. Results

The results regarding the care burden are shown in Table 1. The caregivers of male care recipients bear a heavier burden than caregivers of female recipients, and female caregivers had higher Zarit-8 scores than males. With respect to the duration of care, longer care was associated with a greater burden. Caregivers of single individuals reported a lighter burden.

We found clear differences in the caregivers' burdens between the support and care levels, with the care burden for care levels 1–5 being significantly higher than that for the support levels 1–2. No significant differences were found within either of the groups by the post-hoc analysis.

Of the caregivers, 28.5% (289 of 1015) were satisfied with the services provided by the insurance, and 58.3% (592) were somewhat satisfied. Only 10.7% (109) and 2.5% (25) were dissatisfied or somewhat dissatisfied with the services, respectively. The degree of satisfaction with the care services was associated with the scores on the Zarit burden scale 8 (Table 1).

The majority of the caregivers indicated that their burden was greatly reduced ( $n = 98, 9.7\%$ ) or reduced ( $n = 600, 59.1\%$ ) as a result of the LTCI services. The burden did not change for 27.9% ( $n = 283$ ) of the caregivers, whereas 2.5% (25) considered their burden to have increased after the introduction of the LTCI services, and 0.9% (9) thought their burden had increased greatly. The rates of caregivers by type who felt their care burden was reduced (reduced or greatly reduced) are shown in Table 2. Several caregiver groups showed tendencies to feel a reduced burden including the caregivers of older recipients, younger caregivers, and caregivers of patients with more advanced need classifications. Greater satisfaction with the care services was associated with reduction of the burden.

To further investigate the factors associated with reduction of the care burden, a multiple logistic analysis with the factors having  $p$  values  $<0.2$  in Table 2 was performed. The analysis showed that the younger age of caregivers, the more advanced levels of need

**Table 1**  
Subjects' characteristics and Zarit Burden Score-8.

		Zarit Burden Score-8	$p$ value
Number	1015		
Number of types of services used (1–16)	2.9 ± 1.8		
Zarit-8 (0–32)		10.8 ± 8.5	
	% in each category		
Age of care recipients			0.074
65–69	6.8	9.8 ± 7.3	
70–74	12.3	12.7 ± 8.9	
75–79	19.8	10.7 ± 8.9	
80–84	17.8	10.0 ± 8.3	
85–89	20.2	10.5 ± 8.7	
90+	23.0	11.3 ± 8.3	
Gender of care recipients			0.043
Male	35.8	11.6 ± 8.5	
Female	64.2	10.5 ± 8.5	
Classification level			<0.001
Support level 1	9.2	6.1 ± 7.4	
Support level 2	10.9	7.3 ± 7.4	
Care need level 1	13.9	11.6 ± 8.6	
Care need level 2	14.4	11.2 ± 8.4	
Care need level 3	18.5	13.2 ± 8.8	
Care need level 4	16.3	11.7 ± 8.3	
Care need level 5	16.6	11.3 ± 8.1	
Age of caregivers			0.418
Under 40	2.0	12.0 ± 9.7	
40–64	45.8	10.5 ± 8.2	
65–74	27.6	11.4 ± 8.4	
75+	24.6	11.2 ± 8.9	
Gender of caregivers			<0.001
Male	30.6	9.3 ± 8.3	
Female	69.4	11.6 ± 8.5	
Family structure of care recipients			0.001
Single	8.4	6.3 ± 7.7	
Couple	29.8	10.8 ± 9.0	
With children	58.6	11.3 ± 8.2	
Other	3.2	12.9 ± 7.3	
Relationship			0.052
Spouse	39.4	11.5 ± 8.8	
Child	36.7	10.1 ± 8.1	
Child-in-law	17.6	12.0 ± 8.3	
Other	6.3	11.2 ± 8.9	
Duration of care			0.011
Less than 1 year	7.4	8.8 ± 8.2	
1–3 years	31.1	9.9 ± 8.1	
3–5 years	22.3	11.6 ± 8.7	
5–10 years	27.3	11.4 ± 8.5	
More than 10 years	11.5	12.1 ± 9.2	
Satisfaction with care services			<0.001
Satisfied	28.5	8.8 ± 7.7	
Somewhat satisfied	58.3	11.0 ± 8.4	
Somewhat dissatisfied	10.7	14.3 ± 9.0	
Dissatisfied	2.5	15.3 ± 10.8	

$p$  value by one-way analysis of variance.  
Zarit burden scale 8 scores are shown as mean ± SD.

classification, and greater satisfaction with the services provided were independently associated with reduction of the care burden (Table 3). Sixteen types of services were available through LTCI, and adjustment for the number of the types of services used did not change these results.

### 4. Discussion

In this study almost 70% of the caregivers of the care recipients who used the care services provided by LTCI felt a reduction of the care burden by the introduction of the services. Satisfaction with the services provided by LTCI, a younger age of caregivers, and more advanced care need certification were significantly associated with the reduction of the care burden resulting from the introduction of public LTCI care services.

**Table 2**  
Percent of the subjects whose care burden was reduced.

	Care burden reduced, % (number)	p value
Number	68.8 (698)	
Age of care recipients		0.133
65–69	75.4 (52)	
70–74	62.4 (78)	
75–79	64.8 (118)	
80–84	66.7 (134)	
85–89	70.2 (144)	
90+	73.8 (172)	
Gender of care recipients		0.477
Male	68.4 (245)	
Female	69.1 (444)	
Classification level		0.127
Support level 1	58.1 (54)	
Support level 2 (%)	66.4 (73)	
Care need level 1 (%)	70.0 (98)	
Care need level 2 (%)	68.3 (99)	
Care need level 3 (%)	66.1 (123)	
Care need level 4 (%)	72.6 (119)	
Care need level 5 (%)	74.9 (125)	
Age of caregivers		0.133
Under 40 (n)	75.0 (15)	
40–64 (n)	71.1 (322)	
65–74 (n)	70.0 (191)	
75+ (n)	63.8 (155)	
Gender of caregivers		0.408
Male (n)	68.3 (207)	
Female (n)	69.3 (476)	
Family structure of care recipients		0.809
Single (%)	71.4 (60)	
Couple (%)	66.9 (200)	
With children (%)	59.2 (407)	
Other (%)	71.9 (23)	
Relationship		0.812
Spouse (%)	68.3 (259)	
Child (%)	69.4 (245)	
Child-in-law (%)	72.2 (122)	
Other (%)	67.2 (41)	
Duration of care		0.750
Less than 1 year (%)	63.0 (46)	
1–3 years (%)	68.8 (212)	
3–5 years (%)	70.5 (158)	
5–10 years (%)	69.3 (187)	
More than 10 years (%)	65.8 (75)	
Satisfaction with care services		<0.001
Satisfied (%)	78.2 (226)	
Somewhat satisfied (%)	68.4 (405)	
Somewhat dissatisfied (%)	55.0 (60)	
Dissatisfied (%)	28.0 (7)	

p values by  $\chi^2$  analysis were shown.

Previous studies reported that respite services including home help, day care, and residential respite (short stay service) were associated with alleviation of the care burden (Desrosiers et al., 2004; Garcés, Carretero, Ródenas, & Alemán, 2010; Hawranik & Strain, 2000; Hoskins, Coleman, & McNeely, 2005; Shaw et al., 2009; Theis, Moss, & Pearson, 1994; Warren, Kerr, Smith, & Schalm, 2003; Zarit, Gaugler, & Jarrot, 1999; Zarit, 1996, 2002). The reduction of the care burden reported by caregivers in the current survey may be because of the respite services provided by LTCI. The

content of the services associated with alleviation of the care burden should be investigated further.

This survey shows that the overall satisfaction of the caregivers of individuals using LTCI services in Japan is relatively high (86.8% of the caregivers were satisfied or somewhat satisfied). According to a report from the USA, the LTCI provided by private insurance companies satisfied approximately two-thirds of the claimants (Cohen et al., 2001), and the current results suggested a comparable satisfaction rate for the Japanese public LTCI. The introduction of care services by public LTCI seemed to contribute to a reduction in the care burden, as previously reported (Kumamoto et al., 2006). The report from the USA showed that 72% of the claimants felt stress was reduced by the introduction of the services (Cohen et al., 2001), a figure that was comparable to the rate of this survey (68.8%). More satisfaction with the care services was associated with the reduction of care burden in the current study. Although the current cross-sectional survey did not elucidate the causal relationship, the provision of services that matched the needs of the care recipients and caregivers would lead to the reduction of the care burden and satisfaction with the program. The detailed assessment of the needs of care recipients and caregivers and providing appropriate services would be critical for the burden reduction of the caregivers. The caregivers of recipients with more advanced care need certifications tended to feel that their burden had been reduced by the introduction of the care services. It is very relevant for many countries with increasing elderly population that public LTCI system could reduce care burden of the caregivers of more advanced care needs. In Japanese LTCI care recipients with more advanced care need certifications are afforded more services. Greater frequency and intensity of care services have been associated with the perception of reduced care burden (Garcés, Carretero, Ródenas, & Sanjosé, 2009). In the current study adjustment by the number of different types of care services used did not change the association of the need classification with the reduction of care burden in the multiple logistic analysis. We only surveyed the number of the types of the services. This survey may not be a good index of the intensity of the service, such that adjustment with this index alone may not have been sufficient.

Younger caregivers tended to perceive a reduction in the care burden by the introduction of care services by LTCI. This perception may be because younger caregivers require more time for personal business, and the introduction of the services allowed them that freedom, which may have led to a reduced burden. If so, the LTCI system could provide chances for the younger caregivers to participate in social activities, which may be a relevant message for the countries with increasing elder populations.

Whereas nearly 70% of the caregivers considered their care burden to have been reduced, the burden of some caregivers was found to have increased. The reasons remain unclear, but might include the psychological distress of the presence of home-helpers, the financial costs and time expenditures resulting from the services could be associated with an increased care burden. The reasons for this increase should be investigated. The rates of satisfaction with the care services provided by LTCI were relatively high, but the factors associated with dissatisfaction with the services should be explored. In Japan “care managers” make “care

**Table 3**  
Multiple logistic analysis for the reduction of care burden.

	B	Odds ratio	95% CI	p value
Age of care recipients	0.041	1.042	0.952–1.141	0.371
Age of caregiver	–0.178	0.837	0.709–0.987	0.034
Certified level	0.134	1.143	1.060–1.232	<0.001
Satisfaction with public LTCI (1: dissatisfied greatly; 4: satisfied greatly)	0.688	1.990	1.615–2.452	<0.001

plans" for each care recipient, based on the certification. A system of assessing the care planning would be warranted to reduce the number of dissatisfied and/or heavily burdened caregivers.

In this study, female caregivers reported heavier burdens than male caregivers, which is consistent with a report from Finland (Pöysti et al., 2012). Another study found that female caregivers reported lighter burdens than male caregivers (Rosdinom, Zarina, Zanariah, Marhani, & Suzaily, 2013). Gender differences in care burdens may be subject to cultural, social, and biological factors. In this study, the caregivers of male recipients reported a heavier burden. The reasons for the association were unclear, but the physical burden of providing care for male recipients (e.g., moving them) may be greater.

We found a relationship between the Zarit-8 scores and the duration of care. A longer duration of care appears to exhaust caregivers. This finding agreed with a report by Limpawattana, Theeranut, Chindaprasirt, Sawanyawisuth, and Pimporm (2013). Single persons living alone appeared to have relatively preserved function and had lower need classifications (44% of them were at the support levels). The lower burden of their caregivers was most likely caused by the overall lighter burden of their care.

In this survey, the burden reported by caregivers of elderly individuals classified at any of the "care" levels 1–5 was significantly higher than that reported by caregivers of those classified at the support levels 1–2. This finding suggests that the stratification of support and care levels in the Japanese LTCI system is reasonable. Among the "care" levels 1–5, we found no significant differences in terms of the care burden. In the current analysis, the more advanced care levels were associated with care burden reduction. The current cross-sectional analysis did not reveal whether the care burden reduction resulting from the introduction of LTCI services led to the homogenous care burden among each "care" level. A prospective study would be warranted for further clarification.

The major limitation of this study is its cross-sectional design. It is unclear whether the reduced burden reported by satisfied caregivers was caused by their satisfaction or whether the reduction in the care burden induced by the introduction of the LTCI services led to the satisfaction of the caregivers. The caregivers who indicated a reduction in the care burden had lower Zarit-8 scores, but it is not clear that these lower scores were caused by the introduction of the care services. A prospective survey to investigate the changes in the burden scale scores before and after the introduction of the care services would provide more information regarding the association between LTCI and the care burden. The second limitation of the study was the response rate. We analyzed 34% of the randomly selected samples. The non-responders or incomplete responders may have had less satisfaction or greater care burden levels, and caution in the interpretation of this study is warranted.

This study was performed on a relatively large sample of randomly selected cases of elder care services provided by LTCI in an urban area in Japan. We hypothesize that the sample well represents the local characteristics, but it is not clear whether it is applicable to other areas including rural areas of Japan. In this analysis, the subjects with incomplete data sets were excluded. The age, gender, and certified care levels were not significantly different between the included and excluded subjects; the excluded subjects primarily lacked data from the Zarit burden scale. Careful interpretation of the current results is warranted.

The rate of satisfaction with the care services provided by LTCI in Japan was relatively high, and the degree of satisfaction was associated with the reduction of the care burden.

#### Conflict of interest

None declared.

#### Acknowledgments

*Authors' contributions:* HU contributed to the study design, statistical analysis, interpretation of the data, and preparation of the manuscript. MY, NZ, HN, and MK contributed to the acquisition of the data and interpretation of the data. HE contributed to the study design. *Sponsor's role:* This study was partly supported by funding from the Japanese Ministry of Health, Welfare and Labor (H24YA003 and H24UB005-01).

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Toppan Best-set Premedia Limited	
Journal Code: GGI	Proofreader: Mony
Article No: GGII2080	Delivery date: 23 Apr 2013
Page Extent: 6	

ORIGINAL ARTICLE

## Intensive rehabilitation for dementia improved cognitive function and reduced behavioral disturbance in geriatric health service facilities in Japan

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**Aim:** To examine the efficacy of rehabilitation for elderly individuals with dementia at intermediate facilities between hospitals and home, based on the policies for elderly individuals to promote community-based care at home and dehospitalization.

**Methods:** Participants were older adults with dementia newly admitted to intermediate facilities. A total of 158 in the intervention group who claimed Long-Term Care Insurance for three consecutive months, and 54 in the control group were included in the analysis. The interventions were carried out in a tailor-made manner to meet individual needs. The personal sessions were carried out three times a week for 3 months after admission by physical, occupational or speech therapists. Outcome measures were cognitive tests (Hasegawa Dementia Scale revised [HDS-R] and Mini-Mental State Examination), and observational assessments of dementia severity, activities of daily living (ADL), social activities, behavioral and psychological symptoms of dementia (BPSD) using a short version of the Dementia Disturbance Scale (DBD13), depressive mood, and vitality.

**Results:** Significant improvement in the intervention group was shown in cognitive function measured by HDS-R (interaction  $F[1, 196] = 5.190, P = 0.024$ ), observational evaluation of dementia severity ( $F[1, 198] = 9.550, P = 0.002$ ) and BPSD (DBD13;  $F[1, 197] = 4.506, P = 0.035$ ). Vitality, social activities, depressive mood and ADL were significantly improved only in the intervention group, although interaction was not significant.

**Conclusions:** Significant improvement by intervention was shown in multiple domains including cognitive function and BPSD. Cognitive decline and worsening of BPSD are predictors of care burden and hospitalization, thus intensive rehabilitation for dementia was beneficial for both individuals with dementia and their caregivers. *Geriatr Gerontol Int* 2013; ●●: ●●-●●.

**Keywords:** behavioral and psychological symptoms of dementia, clinical medicine, Dementia Disturbance Scale short version, dementia, geriatric medicine, rehabilitation, tailor-made.

### Introduction

Promoting community-based care at home and dehospitalization is one of the main policies for elderly individuals. In order to reduce the length of hospital stay, it is recommended to establish a rehabilitation and care system for the elderly just after leaving hospital. Thus, the Japanese government established the "Geriatric

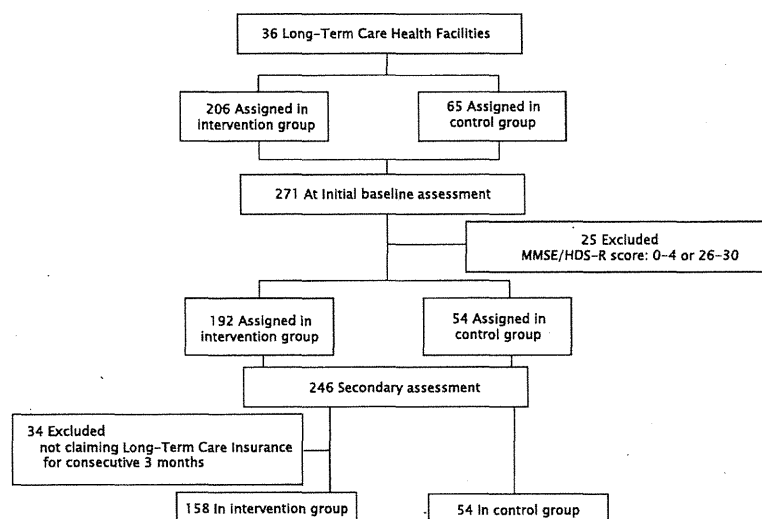
Health Service Facility" in 1986 (Long-Term Care Health Facility after 2000; Roken), which is a transitional facility between hospital and home or nursing home to provide medical treatment, nursing care, and rehabilitation. Elderly individuals are admitted to Roken after their condition has become stable in hospital, and stay until they are ready to return home. After returning home, Roken offers community-based rehabilitation and various care services to support home-based care, and facilitates networks for intraregional exchanges among municipalities, local healthcare and social welfare services.

Since Roken was launched, the number of inpatients with dementia has markedly increased. Hospitalization

Accepted for publication 20 March 2013.

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**Figure 1** Flow of participants in the intervention and control groups. HDS-R, Hasegawa Dementia Scale revised. MMSE, Mini-Mental State Examination.

itself can cause cognitive deterioration, even during a hospital stay for diseases other than dementia, and patients are often not expected to recover to their pre-hospitalization level.<sup>1</sup> Other predictors of hospitalization are caregivers' burden and the interrelationship with caregivers.<sup>2</sup> Behavioral and psychological symptoms of dementia (BPSD) are a source of distress for caregivers and a major reason for hospitalization.<sup>3,4</sup> Additionally, disuse syndrome is triggered by psychological factors associated with dementia, such as a depressive and apathetic mood.<sup>5-9</sup> Disuse syndrome can lead to deterioration of cognitive and physical function, which can result in repeated hospitalization.

To break the vicious cycle of repeated hospitalization, effective rehabilitation just after discharge from hospital is required, and Roken was singled out as the appropriate facility for the rehabilitation. Thus, in 2006, the Japanese Long-term Care Insurance system introduced intensive rehabilitation for individuals with dementia who were newly admitted to Roken, consisting of personal rehabilitation three times a week for 3 months. This rehabilitation has become widely practiced since its introduction. However, the efficacy has not been examined, although the rehabilitation is payable under long-term insurance. Thus, a model project was organized to examine the efficacy of the rehabilitation for dementia in Roken throughout Japan.

## Methods

### Study members

Study committee members were researchers excluding stakeholders of any Roken, and committee observers were staff of the Health and Welfare Bureau for the

Elderly, Ministry of Health, Labour and Welfare. The committee designed the research, selected 36 Rokens, and interpreted the data. Data were collected by rehabilitation staff in the 36 Rokens.

### Participants

The study was carried out between July 2007 and February 2008. The flow of participants is shown in Figure 1. Survey slips were sent to the facilities in July 2007. The facilities were required to send them back after the pre-intervention and post-intervention assessment, respectively. Inclusion criteria of the intervention group were: (i) newly admitted patients with dementia diagnosed by *The Diagnostic and Statistical Manual of Mental Disorders IV*; (ii) with Mini-Mental State Examination (MMSE) or Hasegawa Dementia Scale revised (HDS-R) score between 5 and 25 at pre-intervention assessment; and (iii) who claimed Long-Term Care Insurance for three consecutive months. Inclusion criteria of the control group were: (i) and (ii), and (iii) who did not receive interventions. The participants were not randomized. We received 271 responses, and among them, 212 individuals met the inclusion criteria (158 in intervention group and 54 in control group; Table 1). Informed consent was given from all participants or their responsible care giver. The research plan was approved by the Ethics Board of the Japan Association of Geriatric Health Services Facilities.

### Assessment

The assessment was minimized to reduce the burden of facilities staff. As the interventions were carried out by therapists during working time, it would have been

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**Table 1** Demographic data

		Intervention	Control	
<i>n</i>		158	54	
Male/female (%)		30.2/69.8	39.6/60.4	NS
Age		84.1 ± 7.1	87.3 ± 7.1	P = 0.005 <sup>†</sup>
Dementia	AD	22	7	NS
	VD	52	15	NS
	DLB	3	0	NS
	FTD	2	0	NS
	Others/unknown	79	32	NS

<sup>†</sup>Significant difference by two-sample *t*-test. AD, Alzheimer's disease; DLB, dementia with Lewy bodies; FTD, front-temporal dementia; M/F, male/female; NS, no significant difference by  $\chi^2$ -test; VD, vascular dementia.

difficult to collect many data if the assessment were complicated. The assessment scales were chosen based on preliminary studies, which were carried out in the last 2 years.

**Cognitive tests**

The MMSE and HDS-R were carried out. HDS-R is similar to MMSE, but lays more weight on memory than does MMSE.

**Questionnaires**

For the assessment of subjective mood, the participants were required to answer the interview of a short version of the Geriatric Depression Scale (GDS;<sup>10</sup> scores are between 0–5, high scores indicate more depressive mood). Facility care staff assessed activities of daily living (ADL), BPSD, N-Memory Scale (NM),<sup>11</sup> vitality index<sup>12</sup> and the Social Activity Scale. ADL was assessed using the Barthel Index (scoring was changed: total assistance of 0 to independence of 3 for each item, and full score of 15).<sup>13</sup> In addition to ADL, the capacity for social interaction was measured using the Social Activity Scale, whose sub-items were conversation with facility staff members, conversation with other residents, organizing own belongings, participation in recreational activities, and outings (total assistance of 0 to independence of 3 for each item, and full score of 15). BPSD was evaluated using a short version of the Dementia Behavior Disturbance Scale (DBD);<sup>13</sup> “never” of 0 to “usually” of 3 for each item and full score of 48).<sup>14</sup> The NM Scale is an observational scale, which evaluates the stages of dementia in five domains: housework, social interaction and interest, communication, memory, and orientation (“impossible” of 0 to “normal” of 10 and full score of 50). The Vitality Index evaluates motivation in daily living, with sub-items of waking up, greetings, having meals, elimination, and participation in rehabilitation and/or recreation (“indifferent” of 0 to “voluntarily” of 2 and full score of 10).

**Intervention**

Before commencement of the study, a training workshop was held to introduce the intervention methods, whose efficacy was suggested by previous studies: such as reminiscence, reality orientation, memory rehabilitation, music therapy, physical exercise, occupational therapy, speech communication therapy and learning sessions.

The intervention was carried out in an individualized tailor-made manner.<sup>15</sup> First, the individual functional profiles were assessed with regard to both abilities and disabilities to evaluate how to enhance the abilities and compensate for disabilities. Second, training activities were selected; the decision was shared between therapists and participants. Each personal session was took place three times a week for 3 months after admission by physical, occupational or speech therapists. Individuals in the control group took usual group therapies including exercise, singing songs and games.

**Analysis of data**

The data were analyzed using the Japanese version of SPSS for Windows version 19.0 (IBM Corporation, Armonk, NY, USA). For an initial baseline comparison between the intervention and control groups, two-sample *t*-tests were carried out; there was no significant difference between the two groups for any outcome measure. Participants who underwent the initial baseline and post-intervention assessments were included in the final analysis; dropout participants were excluded from the analysis. Repeated measures analysis of covariance (ANCOVA) with the covariate of age was used to analyze the completed cases. Age was used as a covariate, because the ages were significantly different between the two groups (Table 1). The interaction was examined to assess the differential effect between the intervention and control groups, and post-hoc “within subjects” analysis was carried out with Bonferroni correction. Regarding the measures where significant

interaction was shown, intention-to-treat analysis was also carried out; the participants who received the intervention but did not claim Long-Term Care Insurance for three consecutive months were included in the intention-to-treat analysis. A significant difference was set as  $P < 0.05$ .

## Results

Demographic data of the participants are shown in Table 1. Analysis of 158 participants in the intervention group and 54 in the control group was carried out (Fig. 1). The number of participants who took donepezil during the intervention/observation period was two in both groups ( $P = 0.269$ ,  $\chi^2$ -test).

### Cognitive tests

Participants in the intervention group showed significant improvement in HDS-R score compared with those in the control group (interaction  $F[1, 196] = 5.190$ ,  $P = 0.024$ ; post-hoc intra-subject analysis: intervention group,  $P = 0.001$ , control group  $P = 0.480$ ). There were no significant differences observed in MMSE (Table 2).

### Questionnaire

The intervention group showed significant improvement compared with the control group in DBD<sup>13</sup> ( $F[1,197] = 4.506$ ,  $P = 0.035$ ; post-hoc intra-subject analysis: intervention group,  $P = 0.004$ , control group  $P = 0.413$ ) and NM Scale ( $F[1,198] = 9.550$ ,  $P = 0.002$ ; post-hoc intra-subject analysis: intervention group,  $P < 0.001$ , control group  $P = 0.380$ ). Regarding the sub-items of the NM Scale, significant differences in interaction were observed for social interaction ( $F[1,198] = 15.736$ ,  $P < 0.001$ ), memory ( $F[1,198] = 7.635$ ,  $P = 0.006$ ) and orientation ( $F[1,198] = 4.220$ ,  $P = 0.041$ ).

Although the interaction was not significant, comparison between pre- and post-intervention showed significant improvement in ADL (Barthel Index), Social Activity Scale, motivation (Vitality Index) and mood (GDS) only in the intervention group after multiple correction (Table 2).

### Intention-to-treat analysis

Significant differences remained in the intention-to-treat analysis in the HDS-R and NM Scale; HDS-R, interaction ( $F[1, 230] = 4.466$ ,  $P = 0.036$ ), post-hoc analysis within subjects: intervention group  $P < 0.001$ , control group  $P = 0.585$ ; NM Scale, interaction ( $F[1, 236] = 8.113$ ,  $P = 0.005$ ), post-hoc analysis: intervention

Table 2 ••

	Intervention group		Control group		Interaction F (DF)	n	P	Intra-subject <sup>†</sup>	
	Pre mean $\pm$ SD	Post mean $\pm$ SD	Pre mean $\pm$ SD	Post mean $\pm$ SD				Intervention	Control
<b>Cognitive test</b>									
MMSE	19.1 $\pm$ 4.5	19.4 $\pm$ 5.5	19.5 $\pm$ 4.9	18.2 $\pm$ 7.4	1.780 (1,110)	13	0.185	0.542	0.234
HDS-R	16.9 $\pm$ 5.7	17.9 $\pm$ 6.5	17.0 $\pm$ 5.9	16.7 $\pm$ 6.3	5.190 (1,196)	50	0.024*	0.001**	0.480
<b>Questionnaire</b>									
NM	30.4 $\pm$ 9.1	32.1 $\pm$ 9.5	31.4 $\pm$ 9.8	30.7 $\pm$ 10.9	9.550 (1,198)	52	0.002**	$P < 0.001$ ***	0.380
ADL	16.4 $\pm$ 7.1	17.3 $\pm$ 7.1	15.7 $\pm$ 7.0	15.9 $\pm$ 6.9	1.448 (1,202)	53	0.230	0.001**	0.621
Activity	8.6 $\pm$ 3.3	8.8 $\pm$ 3.4	8.5 $\pm$ 3.1	8.6 $\pm$ 3.2	1.169 (1,200)	53	0.281	0.038*	0.972
Vitality	8.0 $\pm$ 1.7	8.2 $\pm$ 1.6	8.1 $\pm$ 1.8	8.2 $\pm$ 1.8	1.792 (1,199)	53	0.182	0.004**	0.864
DBD	4.5 $\pm$ 5.1	4.0 $\pm$ 4.1	4.5 $\pm$ 4.2	4.8 $\pm$ 4.7	4.506 (1,197)	50	0.035*	0.004**	0.413
GDS	2.5 $\pm$ 1.8	2.4 $\pm$ 1.9	2.3 $\pm$ 1.5	2.4 $\pm$ 1.5	2.048 (1,196)	51	0.154	0.042*	0.634

<sup>†</sup>Intra-subject: post-hoc analysis of intra-subject (comparison between pre- and post-intervention analysis). \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ . Activity, Original Activity Scale; ADL, Activities of daily living; DBD, Dementia Behavior Disturbance Scale; DF, degree of freedom; GDS, Geriatric Depression Scale; HDS-R, Hasegawa Dementia Scale revised; MMSE, Mini-Mental State Examination; NM, N-Memory Scale; Post, post-intervention assessment; Pre, pre-intervention assessment; Vitality, Vitality Index.

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group  $P < 0.001$ , control group  $P = 0.410$ . The interaction of DBD was marginal; interaction ( $F[1, 232] = 3.717, P = 0.055$ ), post-hoc analysis: intervention group  $P = 0.007$ , control group  $P = 0.439$ .

## Discussion

Significant improvement by the intervention was shown in multiple domains; therefore, the intensive rehabilitation for dementia was beneficial for the individuals with dementia and also their caregivers. Pharmacological effects were thought to be negligible, as just two participants in both groups took donepezil during the intervention/observation period.

Regarding cognitive function, the effects of intensive rehabilitation for dementia were shown in both a cognitive test and observational evaluation of memory and orientation measured by NM Scale. In the symptomatic treatment of dementia, amelioration in daily living rather than in neuropsychological factors should be the therapeutic objectives, and thus the emphasis would be laid on improving performance in everyday life rather than on scores of cognitive tests.<sup>16</sup> Besides, it is often pointed out that scores of cognitive tests cannot always be generalized to daily living, although cognitive tests are moderately predictive of functional status in everyday life.<sup>17</sup> Therefore, mere enhancement of cognitive test scores is not sufficient, and beneficial changes in daily living are required. In the present study, cognitive improvement was shown in observational evaluation, in addition to a cognitive test. Cognitive enhancement is also beneficial for caregivers, because the severity of cognitive impairment could be a predictor of burden, in addition to BPSD.<sup>18,19</sup> The effects of non-pharmacological approaches on cognitive function have not yet been established,<sup>16,19</sup> and the present study could provide additional evidence for their benefit.

Amelioration of BPSD was also attained in the present study. Care for demented individuals requires allocation of longer times than for care of the elderly suffering from physical diseases. In particular, the presence of BPSD might induce more stress than do medical problems,<sup>4,20-23</sup> and could result in depression or strain in caregivers.<sup>24</sup> Consequently, caregivers' burden is associated with an increased risk of institutionalization.<sup>25</sup> However, institutionalization could not solve caregivers' distress; a year after institutionalization, distress still persisted in caregivers.<sup>26</sup> In contrast, treatment of BPSD could help diminish caregiver burden.<sup>27</sup> Thus, it is beneficial both for individuals with dementia and their caregivers to reduce BPSD by rehabilitation in intermediate facilities between hospital and home.

In addition to enhancement of cognitive function and reduction of BPSD, improvement of social functioning and quality of life (QOL) should be the main outcomes of rehabilitation for dementia.<sup>16</sup>

Social isolation is associated with increased risk of mental decline,<sup>28</sup> whereas a rich social network and interaction might protect against mental decline.<sup>29,30</sup> In demented individuals, symptoms of depression were a consistent predictor of QOL.<sup>31</sup> In the present study, the intervention group showed improvement of social functioning measured by the Social Activity Scale, and amelioration of depressive mood measured by GDS.

Regarding the intervention, individualized tailor-made therapies were carried out, because the aim of the present study was to enhance each participant's ability to meet their individual needs, and not to show the efficacy of any specific method. Personally-relevant goals were identified, and the therapist worked with the individuals with dementia to devise strategies to cope with difficulties in their everyday lives by building on the person's strengths and developing ways of compensating for impairment.<sup>15</sup> Personal selection was considered an essential therapeutic element to enhance the motivation and optimize the emotional impact of the training. Changing and combining methods were allowed during the intervention period.

The present study showed that intensive rehabilitation should be beneficial for both individuals with dementia and caregivers. To promote community-based care and dehospitalization, continuity of rehabilitation is desirable to maintain function after returning home; another mission of Roken is to offer community-based rehabilitation and various care services to support home-based care.

As a limitation, the participants were not randomized. By data cleaning, data including missing values were excluded so that the numbers of valid data were different among assessments. Finally, for evaluation of the effects on dehospitalization, a longitudinal follow-up study is required.

## Acknowledgment

This study is partially supported by a Grant-in-Aid from the Ministry of Health Labor and Welfare (#19 Health Promotion Projects for Elderly-169 2-Na).

## Disclosure statement

The authors declare no conflict of interest.

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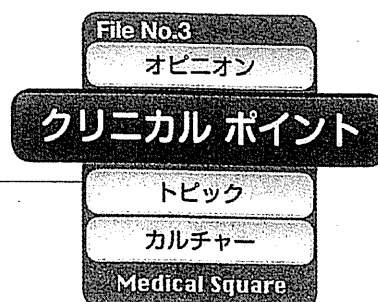
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# アルツハイマー型認知症治療薬の 薬剤選択基準

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超高齢化社会を迎えたわが国では、高齢者の増加に伴いアルツハイマー型認知症（AD）患者が増加している。いまだADを完治させる薬剤は開発されていないものの、わが国では2011年、12年振りにADの進行を抑制する新薬が発売され、薬剤の選択肢が広がった。選択肢が広がったことは歓迎すべきであるが、薬剤選択にあたっては何を基準とすればよいのか？

今回のメディカル・スクウェアでは、認知症治療の最前線で活躍されている国立長寿医療研究センターの遠藤英俊氏にAD治療薬の選択基準を中心に執筆いただいた。

## はじめに

認知症診療は今やすべての医師にとって避けては通れない状況になっている。アルツハイマー型認知症（AD）に対して、4種類の薬剤が使用可能となり、診断の重要性と共に、ステージ診断や周辺症状（BPSD）の評価が重要であり、薬剤を適切に選択する必要性がある（表1）。2010年には「認知症疾患治療ガイドライン」<sup>1)</sup>も発表されており、これに従って診断、治療を行うことが望ましい。すなわち、治療にあたり知識と経験が必要とされる。薬剤の種類としてはコリンエステラーゼ阻害剤が3種類とNMDA受容体拮抗剤が1種類である。重症度やBPSD、患者背景にあわせて、適切に選択する必要がある。AD治療薬は認知機能の進行遅延の他、ADLにかかわる介護時間の短縮、介護の見守り時間の短縮、入所時期の遅延による医療費・介護費用の削減などの効果が報告されている。さらに認知

症に対する良質なケアや脳リハビリが加われれば、治療効果も向上する。その結果として、認知症の人やその家族のQOL向上において重要な意義がある。そのためにもAD診療において家族への指導、支援が重要となる。現在の治療薬では病気は完治しないが、病状を修飾することができる。すなわち、これらの薬剤の利点と欠点を知り、病期、症状にあわせて選択することが重要である。

## アルツハイマー型認知症の 未治療患者への薬剤選択基準

AD治療薬にはそれぞれステージからみた選択基準の原則がある。承認された重症度に応じて薬剤を選択する必要がある。作用や副作用を適切に評価して、無効であれば、他の薬剤に変更したり、併用を検討する。

最初に治療薬はADになってから始めるか、

表1 アルツハイマー型認知症の治療薬 (各薬剤の添付文書より)

一般名 (製品名)	ドネペジル (アリセプト®)	リバスチグミン (イクセロン®, リバスタッチ®)	ガランタミン (レミニール®)	メマンチン (メマリー®)
作用機序	アセチルコリンエステラーゼ阻害	アセチルコリンエステラーゼおよびブチリルコリンエステラーゼ阻害	アセチルコリンエステラーゼ阻害およびニコチン性アセチルコリン受容体へのAPL作用	NMDA受容体チャネル阻害
アルツハイマー型認知症の適応症	軽度から高度	軽度及び中等度	軽度及び中等度	中等度及び高度
錠形	錠, 細粒, □腔内崩壊錠, 内用ゼリー	パッチ剤	錠, □腔内崩壊錠, 内用液	錠
投与回数	1日1回	1日1回	1日2回	1日1回

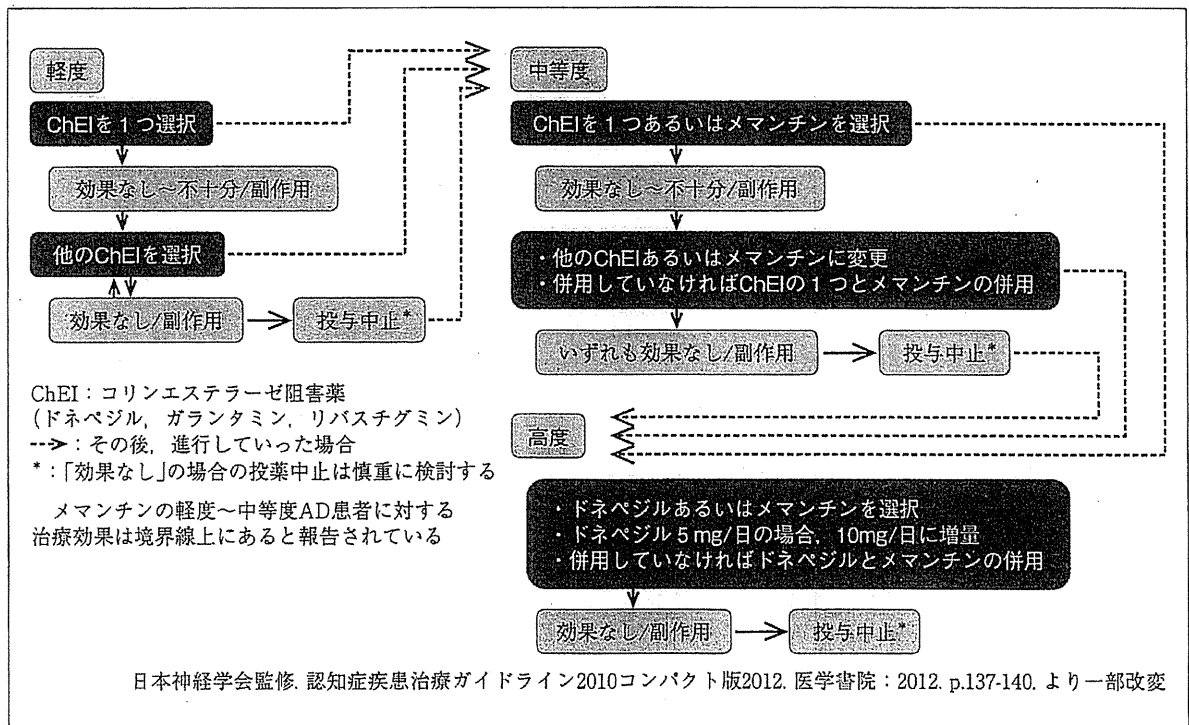


図1 病期別の治療薬剤の選択アルゴリズム

MCIレベルから開始するのにはまだ十分なエビデンスはない。しかしながら薬剤の基礎的データからみれば, なるべく早期に治療を開始することが望ましいといえる。

軽度であれば, ドネペジル, ガランタミン, リバスチグミンから1剤を選択する。中等度であれば, ドネペジル, ガランタミン, リバスチグミン, メマンチンから1剤を選択するか, またはメマンチンと他の3剤のうちの1

つを併用することが可能である。高度であればドネペジルとメマンチンに適応が承認されている。図1に病期別の治療薬剤の選択アルゴリズムを示した。

なおファーストチョイスについては, 歴史的にみても, 安全性からみてもドネペジルが選ばれることが多い。しかしながらリバスチグミンは, 買い物をするなどのIADLの改善効果を示すので, 初期の患者に勧められる。AD