

表4 血清アルブミン値3.8 g/dLを基準値とした時の介護保険認定及び死亡リスク (n=832)

	血清アルブミン値 (g/dL)				P for Trend
	≤3.8	3.9-4.1	4.2-4.3	≥4.4	
イベント数/対象者数	24/80	54/302	33/277	19/173	
性・年齢補正 HR	2.1(1.1-3.9)	1.5(0.9-2.5)	1.0(0.6-1.7)	1.0(reference)	0.004
HR1	2.2(1.2-4.2)	1.5(0.9-2.6)	0.9(0.5-1.7)	1.0(reference)	0.003
HR2	2.0(1.1-3.7)	1.5(0.9-2.5)	1.0(0.5-1.7)	1.0(reference)	0.006
HR3	2.1(1.1-4.0)	1.8(1.0-3.0)	1.0(0.6-1.8)	1.0(reference)	0.002
HR4	2.3(1.2-4.5)	1.8(1.1-3.1)	1.0(0.6-1.8)	1.0(reference)	0.001

血清アルブミン値を連続変数として P for Trend を算出

性・年齢補正 HR (95%信頼区間)

HR1: 性, 年齢, 教育歴, 配偶者の有無, ソーシャル・サポートの有無を補正

HR2: 性, 年齢, 喫煙状況, 飲酒状況を補正

HR3: 性, 年齢, 抑うつ, 認知機能, 疾患既往歴, 主観的健康度を補正

HR4: 性, 年齢, 教育歴, 配偶者の有無, ソーシャル・サポートの有無, 喫煙状況, 飲酒状況, 抑うつ

認知機能, 疾患既往歴, 主観的健康度を補正

は示されなかった。多変量モデルすべてにおいて、これらの結果は大きくは変わらなかった。

IV 考 察

本研究の目的は、介護保険認定および死亡リスク予測の観点から、血清アルブミン値を特定高齢者の決定基準として用いる場合の基準値の妥当性を検討することである。そのため、仙台市宮城野区鶴ヶ谷地区の70歳以上住民を3年間追跡し、血清アルブミン値と介護保険認定および死亡リスクとの関連について検討を行った。その結果、血清アルブミン値3.5 g/dLから4.0 g/dLの基準値すべてにおいて、介護保険認定および死亡リスクが有意に上昇した。血清アルブミン値3.8 g/dLを基準値とした時、該当率は9.6%、感度は18.5%、特異度は92.0%、陽性反応適中度は30.0%であることが明らかとなった。

1. エンドポイント

本研究では、エンドポイントを介護保険認定または死亡とした。それに対して、エンドポイントを介護保険認定のみとすること、あるいは死亡のみとすることも可能であろう。しかし、そのどちらを取っても本研究の結果から大きく変わることはなかった。介護保険認定のみをエンドポイント（認定を受けずに死亡した者については、死亡年月日で追跡打ち切り）として解析を行った場合、血清アルブミン値3.8 g/dLを基準値とした時の性・年齢補正ハザード比 (95% CI) は1.6 (0.8-3.1) であり、介護保険認定リスクは、有意ではないものの上昇傾向が認められた。また、死亡のみをエンドポイントとして解析を行った場合、性・年齢補正ハザード比 (95% CI) は2.9 (1.1-7.8) であり、介護保険認定

のみをエンドポイントとした場合よりも点推定値が高かった。

本研究のエンドポイントを発生しない状態とは、介護保険認定を受けなくて生存することであり、これはすなわち、健康寿命を意味するものである。

2. 集団の特性

本研究では「寝たきり予防健診」受診者（受診率32.8%）を解析対象としていることから、選択バイアスの影響について考えなければならない。そこで、本研究の解析対象者と国民健康・栄養調査¹⁰⁾における70歳以上対象者との間で、血清アルブミンの平均値（標準偏差）を比較した。その結果、本研究対象者の男性で4.1 (0.3) g/dL、女性で4.2 (0.2) g/dLであるのに対し、国民健康・栄養調査の男性で4.3 (0.3) g/dL、女性で4.4 (0.3) g/dLと、両者の間に大きな差は認められなかった。一方、国民健康・栄養調査では、血清アルブミン値3.8 g/dL未満の者の頻度は男性で3.8%、女性で2.4%であったと報告している。本研究対象者における血清アルブミン値3.8 g/dL未満の者の頻度は男性で5.0%、女性で4.6%であり、本研究対象者の方が低栄養の頻度が高かった。

3. 血清アルブミンの基準値

本研究では、血清アルブミン値3.5 g/dLを基準値とした時の該当率は1.3%と、極めて低かった。地域支援事業では、介護予防プログラムに参加する特定高齢者の頻度を、65歳以上高齢者人口の概ね5%程度と想定している¹⁾。しかし、厚生労働省第2回介護予防継続的評価分析等検討会において、特定高齢者として認定された者が介護予防プログラムへ参加する頻度は約3分の1と、非常に低いことが報

告されている。したがって、地域高齢者の5%に介護予防サービスを提供するには、参加率の低さを考えると、(5%よりも)高い頻度で拾い上げる基準値を設定することが望ましい。

血清アルブミン値3.5 g/dLから3.7 g/dLを基準値とした時、特異度は95%、陽性反応適度は40%を超えたが、感度は15%を下回った。また、該当率は1.3%から4.8%であった。このような低い該当率および感度では、スクリーニングの効果を期待し難いものと思われる。一方、血清アルブミン値3.9 g/dLおよび4.0 g/dLを基準値とした時、感度は30%を超えたが、特異度は85%、陽性反応適度は30%を下回り、偽陽性者の増加が懸念される。また、該当率も17.8%および29.6%という高値になり、このような高い該当率(低い特異度)では、スクリーニングの效果に支障を来しかねない。それに対し、血清アルブミン値3.8 g/dLを基準値とすると、該当率9.6%、感度18.5%、特異度92.0%、陽性反応適度30.0%と、今回検討した範囲の基準値の中では、これらのバランスがとれていると思われる。したがって、厚生労働省第2回介護予防継続的評価分析等検討会において、特定高齢者の決定基準の見直し案として提案された「血清アルブミン値3.8 g/dL以下」という決定基準をもって、介護保険認定および死亡リスクを予測することの妥当性が示唆されたと言える。

一方、血清アルブミン値3.8 g/dLを基準値とした時の感度は18.5%と低く、基準値以上の者のなかにも介護保険認定のハイリスク者が相当存在していることは確かである。介護保険認定リスクや死亡リスクには栄養状態以外の様々な要因が関連していることから、特定高齢者を決定する際には、血清アルブミン値3.8 g/dL以下という決定基準の他、運動器機能、口腔機能、うつ・閉じこもり・認知症等を包括した、総合的な判定を行うことが不可欠であることは言うまでもない。また、栄養状態の改善についてはハイリスク戦略だけでなく、地域高齢者全体に対するポピュレーション戦略を行うことも重要であると言える。

4. 本研究の長所・限界

本研究の長所は、第1に地域高齢者を対象としている点である。本研究は、地域高齢者を対象として低栄養と介護保険認定リスクについて検討を行った本邦初めての報告であり、地域高齢者の栄養状態の基準値を考えるうえで重要な知見となりうる。第2に、介護保険認定および死亡リスクの解析にあたり、社会的要因、生活習慣、精神・身体的要因を考慮に入れた点である。これらは介護保険認定および

死亡リスクに影響する要因を概ね網羅していると考えられる。

一方、本研究の限界は、第1に血清アルブミン値の測定をベースライン時でのみ行っている点である。したがって、本研究では3年間の追跡期間中における栄養状態の変化を考慮することができなかった。第2に、介護保険認定を受けた理由や死因が不明な点である。したがって、本研究では高齢者における栄養状態の悪化が、他の要因(身体機能の悪化や抑うつ状態等)と比較して介護保険認定および死亡リスクにどの程度強く影響しているのか把握することができなかった。

5. 今後の展望

本研究により、血清アルブミン値3.8 g/dLを基準値とすることの妥当性が示唆された。この基準値を特定高齢者の決定基準として用いることにより、より多くのハイリスク者を介護予防プログラムに参加させられるものと期待される。今後それらを検討するとともに、栄養改善プログラムの参加者における介護予防の効果についても、検討を行う必要がある。

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Malnutrition and the risk of long-term care insurance certification or mortality A cohort study of the Tsurugaya project

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Key words: Community-dwelling elderly persons, cut-off point, long-term care insurance certification, serum albumin

Objective The purpose of this study was to propose a suitable cut-off point for the serum albumin value to predict which elderly individuals are qualified for long-term care insurance certification and those at risk of death.

Methods The Tsurugaya Project was a comprehensive geriatric assessment conducted for community-dwelling elderly persons aged 70 years or older in Sendai, Japan. Of those participating, the 832 from whom consent was obtained and who were not qualified for long-term care insurance certification were adopted as subjects. Cut-off points on serum albumin levels were set every 0.1 g/dL from 3.5 g/dL to 4.0 g/dL. The risk of incident certification of long-term care insurance or death (calculated by the Cox proportional hazards model), the frequency of the subjects, the sensitivity, the specificity and the positive predictive value of the category below each cut-off point were calculated.

Results During 3 years follow-up, a total of 130 subjects either became certificated for long-term care insurance or died. On multivariate analyses, the risk of incident certification of long-term care insurance or death showed significantly increase with all cut-off points. The frequencies were 1.3% at 3.5 g/dL, 9.6% at 3.8 g/dL and 29.6% at 4.0 g/dL. The sensitivities were 5.4% at 3.5 g/dL, 18.5% at 3.8 g/dL and 45.4% at 4.0 g/dL. The specificities were 99.4% at 3.5 g/dL, 92.0% at 3.8 g/dL and 73.4% at 4.0 g/dL. The positive predictive values were 63.6% at 3.5 g/dL, 30.0% at 3.8 g/dL and 24.0% at 4.0 g/dL. When the serum albumin cut-off point was set to 3.8 g/dL and the highest tertile level of the serum albumin value was used as a reference category, the sex- and age-adjusted hazard ratios (95% confidence intervals) were 2.1 (1.1-3.9) in those with serum albumin \leq 3.8 g/dL, 1.5 (0.9-2.5) in those with the lowest tertile level and 1.0 (0.6-1.7) in those with the middle tertile level.

Conclusion This study suggested that a serum albumin value of 3.8 g/dL is a suitable cut-off point with regard to sensitivity, specificity and positive predictive value.

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Analysis of subjective evaluations of the functions of tele-coaching intervention in patients with spinocerebellar degeneration

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Abstract. Few studies have revealed the impact of tele-coaching on patients with intractable diseases, including intractable neurological diseases. This study aimed to analyze and describe subjective evaluations of coaches and intervention subjects on the functions of tele-coaching intervention for patients with spinocerebellar degeneration. This qualitative descriptive study was conducted between December 2005 to July 2006. Immediately prior to data collection three experienced coaches had delivered individual 10 session semi-structured tele-coaching interventions to 24 subjects. Data from the 24 logs kept by coaches and individual interviews with the three coaches and nine patients were analyzed using a content analysis technique. Although patients' subjective evaluations varied, the themes that emerged from the data analysis were generally positive: that the tele-coaching enabled patients to tell their own stories in a daily-life setting, encouraged them to experience and adopt fresh points of view, and helped them to start working towards attainable goals without giving up. Our results indicate that it is especially important to encourage patients with intractable diseases to become aware of their latent desires and goals. For patients such as those with spinocerebellar degeneration the time frame for coaching interventions might be extended when required to accommodate treatment of their changing medical and mental condition.

Keywords: Coaching, tele-coaching, rehabilitation, spinocerebellar degeneration, qualitative research, content analysis

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1. Foreword

1.1. Background of the study

Spinocerebellar degeneration and other intractable neurodegenerative diseases follow a chronic course, respond to only a limited number effective therapy, and entail prolonged care for physical disorders. Most methods to alleviate the physical disorders involve rehabilitative interventions such as therapeutic exercises, walking aids, orthoses, and environmental manipulation. Patients with neurodegenerative diseases bear mental as well as physical burdens.

The progression of disability in activities of daily living has been reported to adversely affect the quality of life of patients with intractable neurological diseases [5]; Moreover, in some patients the diagnosis and experience of spinocerebellar degeneration can reveal depressive emotional disturbance [4]. All patients are likely to be concerned about functionally poor prognosis and the socioeconomic problems associated with diseases expected to be prolonged. Accordingly, the main objective in the management of neurodegenerative diseases should be to maintain or improve quality of life.

It has been reported that psychological adjustment has a greater effect on health-related quality of life than on disease severity in patients with chronic diseases [15, 16]. Psychosocial intervention is thought to be conducive to quality of life and psychological adjustment to diseases. However, only a few studies have focused on the effects of such interventions.

Professional coaching is an ongoing relationship that aids people in achieving extraordinary results in their lives, careers, businesses, or organizations. Through this process, clients deepen their learning, improve their performance, and enhance their quality of life [17]. The efficacy of coaching has been reported for patients with various pathologies, including diabetes [12], hyperlipidemia [18,19], cancer pain [9], and urinary disturbance [1]. The outcomes in these studies were evaluated not in terms of quality of life, but by assessing indexes of disease severity such as the pain index [9], serum cholesterol level [18,19], hemoglobin A1c [12], and Bladder Function Questionnaire [1]. Coaching has been proposed to be effective by promoting self-discipline [12], compliance with treatment regimens [18], and effective communication with physicians for obtaining consent to treatment regimens and enhancing self-efficacy [9]. Telephone coaching as tele-rehabilitation has been reported by several au-

thors [2,10,13], and telephone-based interventions are widely used in managing various medical problems [3, 8,11,21,22]. A study in the field of rehabilitation examined an intervention structure for home rehabilitation linked with supports for early hospital discharge [20]; this served as a basis of later large-scale studies [6]. As of this writing, however, there is no consensus on the mechanisms underlying coaching efficacy.

To evaluate the effectiveness of a coaching intervention for patients with spinocerebellar degeneration a randomized controlled trial of a telephone tele-coaching intervention was conducted by Izumi et al. as a pilot study, "Study on Tele-coaching Intervention: Randomized Controlled Study in Patients with Spinocerebellar Degeneration" [14]. Because qualitative research can be used to describe subjective experiences in detail, a qualitative study was planned as part of the study of Izumi et al. in order to more fully explore the processes and effects of the intervention. This paper reports the results of that qualitative study. The findings of Izumi et al. indicated that self-efficacy of the intervention subjects increased as a result of three-month tele-coaching intervention [14]. The present study was designed to investigate subjective evaluations of coaches and intervention subjects on the functions of tele-coaching intervention, and clarify the structure of direct human intervention and the mechanism of the efficacy.

1.2. Objective and significance of the study

This study aimed to analyze and describe subjective evaluations of coaches and intervention subjects on the functions of tele-coaching intervention for patients with spinocerebellar degeneration. Few studies in the past have examined the subjective evaluations of coaches and intervention subjects on the functions of tele-coaching intervention in patients with intractable neurological diseases. By doing so in this study, we expected to clarify the functions and verify the efficacy of coaching intervention in patients with intractable neurological diseases. In addition, by specifying the structure of the intervention more clearly, we hoped to design a study at a higher evidence level with an enhanced quality of intervention.

1.3. Definition of technical terms

1.3.1. Tele-coaching

Tele-coaching was defined as coaching provided through verbal communication on the phone.

1.3.2. Tele-coaching log

The tele-coaching log was defined as a documented record of tele-coaching content written out by a coach immediately after a tele-coaching session.

2. Methods

2.1. Study design

This study was a qualitative descriptive study using a content analysis technique. The intervention study that preceded it had followed the protocol for a randomized controlled trial. Twenty-four patients with spinocerebellar degeneration participated. During the first three months, 12 patients received tele-coaching and the 12 patients of the control group continued normal treatment without receiving tele-coaching. By this randomized controlled study, we measured the effects of the tele-coaching. As part of our ethical responsibility, the 12 patients in the control group also received the tele-coaching intervention equally. Thus, at the end of the RCT study, all 24 patients received the tele-coaching intervention.

2.2. Study period

The qualitative study reported here was performed from December 2005 to July 2006.

2.3. The tele-coaching intervention of the RCT

2.3.1. Frequency and period of the tele-coaching

The tele-coaching intervention for each patient was planned to occur at a frequency of one session per week, for a course of 10 sessions. The coaches called the intervention subjects and conversed with them at dates and times previously arranged; each coach made a telephone call (tele-coaching) to assigned patients nearly every week. Each session lasted from 15 to 30 minutes. One tele-coaching course lasted for about three months. Coaches kept records (logs) of each session.

2.3.2. Steps of the tele-coaching

Each course of 10 sessions went through the steps of icebreaking, pre-coaching, coaching flow, refrain, and evaluation, in that order. In addition, a series of similar steps were also prepared and implemented in each session.

2.3.3. Questionnaire on the subjects' visions of themselves in two years

After the first session each subject was mailed a questionnaire with instructions to return it before the start of the second session. The questionnaire asked: "Do you have any vision of yourself two years in the future? If so, how do you see yourself?" The coaching in the second session was prepared on the basis of the questionnaire responses to the subjects' visions of themselves two years in the future.

2.3.4. Qualifications of the coaches and measures to ensure intervention quality

Each patient had been coached by one of three physicians (a physiatrist, a hematologist, or an ophthalmologist), all having practiced 19 to 21 years after graduation from medical school, having undergone coach training, and having themselves been coached by professional coaches certified by the International Coach Federation (ICF). A Certified Coach is a person who has completed a program in Japan that International Coach Federation (ICF) qualifies, and passed the examination. The three coaches had experience in tele-coaching interventions and had been trained in narrative therapy techniques. Moreover, each coach was supervised or coached by two coaching experts (one an internationally accredited coach) about once a week during the tele-coaching intervention period.

There were three coaches, male physicians in their forties without specialization in the department of neurology. None were in charge of the treatment of the intervention subjects they coached.

2.4. Study targets: Sample and data collection

Study targets were details of the tele-coaching logs describing the tele-coaching intervention with each subject, details of the semi-structured interviews with the 3 coaches, and details of the semi-structured interviews with 9 patients who received the intervention.

2.4.1. The tele-coaching logs

Logs were kept by the coaches after each session with each patient. Each session had also been audio-taped. There were data for sessions with 24 patients; thus, 24 tele-coaching logs (one log with reference to each subject/patient).

Table 1
Attributes of the Nine Subjects of Tele-Coaching Intervention

ID	Age	Sex	Diagnosis
A	60	Female	Pure cerebellar ataxia
B	49	Male	Cortical cerebellar atrophy
C	40	Male	Spinocerebellar atrophy type 1 (SCA1)
D	65	Male	Spinocerebellar atrophy type 3 (SCA3)
E	54	Male	Olivopontocerebellar atrophy
F	55	Male	Spinocerebellar atrophy type 3 (SCA3)
G	64	Female	Cortical cerebellar atrophy
H	50	Male	Olivopontocerebellar atrophy
I	39	Female	Spinocerebellar atrophy type 6 (SCA6)

2.4.2. The coaches

The three coaches participated in individually administered semi-structured interviews. We asked them mainly about the following: what was most impressive to them in the tele-coaching intervention, what technique was most effective, and what was most beneficial for the subjects. The interviews were transcribed verbatim and analyzed in that form.

2.4.3. The patients

Although 24 patients received the intervention, not all were asked to participate in this study. The study protocol specified that only those deemed to be in medically stable condition and not depressed were to be invited to participate. The physicians of each patient made that determination. Ten patients were deemed eligible; one declined to participate.

We conducted semi-structured interviews with the 9 eligible and consenting patients to ask them mainly the following: what was most impressive to them in the tele-coaching intervention, what was most beneficial to them, and what was still useful to them at the time of the interview. The interviews were transcribed verbatim and analyzed in that form.

The attributes of these 9 subjects are shown in Table 1. They had an average age of 52.9 years. Most were male (66.7%), and 55.6% suffered from hereditary subtypes of spinocerebellar degeneration. The male subjects were unemployed or retired and the female subjects were full-time homemakers. The 24 subjects were 47.9 years old on average. Males (58.3%) slightly outnumbered females (41.7%) and 79.2% of the subjects suffered from hereditary subtypes of spinocerebellar degeneration.

2.5. Content analysis procedure

The transcripts of interviews with 3 coaches and 9 patients and the logs for the 24 courses of tele-coaching were coded line-by-line using the coaches' actual word

to analyze and describe the coaching techniques they addressed.

We continually compared code to code in order to identify similarities and difference, and similar codes were integrated. Categories were produced and characteristics of concepts identified by repeating the classification and the integration of codes.

First, we carefully read through the tele-coaching logs to extract the characteristics of the functions of tele-coaching in each step. Next, we carefully read the data from the semi-structured interviews with the coaches and intervention subjects to extract subjective evaluations on the functions of the tele-coaching.

The results of the above analysis were integrated to study how the functions recognized as beneficial by the coaches and intervention subjects had been used in the tele-coaching processes. Our research team is experienced in qualitative analysis; co-author MK is recognized as an expert. And during the analytical work, we received supervision by another expert. The analytical work was executed by several researchers in parallel to secure the adequacy and credibility of the analytical results.

2.6. Ethical considerations

Both this qualitative study and the study to which it is related, "Study on Tele-coaching Intervention: Randomized Controlled Study in Patients with Spinocerebellar Degeneration," were conducted with the approval of the Ethics Committee of Tohoku University Graduate School of Medicine obtained in fiscal 2004.

The secretariat for this qualitative study was established within St. Luke's College of Nursing. All data related to the study were kept safe in a locked depository to ensure the strict control of private information. When the candidate intervention subjects completed their consent forms during recruitment, the forms were handed directly to the study secretariat and strictly managed to ensure that the physicians in charge remained unaware of which patients had given their consent to participate in the study.

The interviews with the tele-coaching coaches and selected intervention subjects were conducted after the study secretariat had clearly explained the study objective, reviewed the ethical compliance items, and obtained the informed written consent. The tele-coaching had been recorded with the full consent of the relevant parties after they had been informed that they were allowed to refuse recording or to stop the recording in the middle of the interview.

Due consideration was also given to the handling of the verbatim transcripts of interviews as part of normal procedure and also because one coach was among the collaborators for the qualitative study. In preparing the verbatim transcripts for the analysis meeting the data were limited or abstracted by making all personal data anonymous.

3. Results

3.1. Actual functions of the tele-coaching in each step observed in the tele-coaching logs

3.1.1. Functions of the icebreaking

In general, the first and second sessions of the ten sessions were positioned as the icebreaking step. However, the number of sessions required for icebreaking varied from subject to subject, depending on their reasons for participating in the study and the degree to which they understood the coaching intervention itself.

The coaches tried to encourage the subjects to converse in a relaxing and enjoyable atmosphere. They did so by releasing the tension of the subjects through mutual self introduction and telling the subjects verbally about the efforts and advantages of the subjects. The coaches selected appropriate communication techniques to suit the subjects. For talkative subjects, for example, they listened to the subjects' stories without interrupting. For quiet subjects, they tried to pose questions that were likely to encourage the subjects to tell stories of their own.

3.1.2. Functions of the pre-coaching

In general, the second to fourth of the ten sessions were positioned as the pre-coaching step. As with the icebreaking step, however, this varied from subject to subject, depending on their reasons for participating in the study and the degree to which they understood coaching intervention itself.

In choosing the topics, the coaches decided to ask the subjects how they felt about themselves at the present, in the near future, or in the remote future. Among the responses from the subjects, the coaches decided to use the answers on the subjects' visions of themselves two years in the future. Many of the subjects answered, "I know nothing about my future or myself in two years." There was considerable variation, however, in the intentions and emotions behind these responses. Some of the subjects were taken aback and told their coaches that it was "too harsh to ask a patient with a gradually

worsening disease and no hope for recovery to envision himself or herself two years in the future." Others indicated that they "consciously try not to consider the future, as the disease may worsen considerably compared to the present." Still others indicated that they "can't answer such a sudden question, never having considered what lies ahead two years in the future." Among the motivations to receive the tele-coaching intervention, the subjects commonly shared a desire to "improve my disease or quality of life."

In the pre-coaching step, the coaches began by expressing their interest in how the subjects felt about themselves at present, in the near future, or in the remote future. Next they composed and asked more questions based on the responses and traits of the subjects, and accepted the thoughts and emotions expressed by the subjects as they were. The coaches also provided the subjects with opportunities to consider their goals or desires by pointing out the subjects' own statements momentarily in conversations focused on "what they wish to do" or "what efforts they have made to do as they wish," and by deepening the questions on the topics.

3.1.3. Functions of the coaching flow/refrains

In general, the fourth to ninth of the ten sessions were positioned as this step. The coaches combined techniques such as listening, questioning, acknowledging, and proposing during the tele-coaching sessions. To close each session, the coaches reviewed the contents of the coaching for the session with statements such as, "today, we talked about ..."

In addition to encouraging the subjects to verbally express positive emotions about their own diseases and present situations, the coaches encouraged them to express negative emotions with peace of mind and calm acceptance. Though variable from person to person, most of subjects expressed negative emotions relatively more often in the former half of the course, in the fourth to sixth sessions, than in the latter half. Later, from the sixth to ninth sessions, most of the subjects made positive statements about their will to act and about changes in their perspectives and behaviors. Thus, statements and attitudes of the subjects were found to have changed from the former half to the latter half of the course.

3.1.4. Functions of the evaluation

The ninth and tenth sessions of the tele-coaching course were devoted to evaluation. The coaches provided the subjects with opportunities to review the contents of the tele-coaching. The subjects were encour-

aged to talk freely about how they felt their perspectives and behaviors had changed from before the start of the tele-coaching. In response, the coaches verbally described their own findings and perspectives on the changes they observed in the subjects.

3.2. Evaluations of the tele-coaching functions by the coaches

3.2.1. Listening closely

The coaches found, in the course of the tele-coaching, that it worked well to periodically provide subjects with the opportunity to express their own thoughts and emotions to others. By incorporating techniques such as "repeating the words of the conversational partner" and "encouraging the conversational partner to elaborate by verbal prompting with conjunctions" into the listening function, the coaches created an atmosphere in which the subjects could talk at ease. This approach was found to be useful in establishing the relationship of confidentiality so important for effective tele-coaching.

The subjects responded well to having a person other than a family member ask them with interest about themselves and how they are doing. This stands to reason, as physicians at outpatient clinics tend not to listen to topics unrelated to diagnosis, etc. I found it meaningful to listen to the female subject repeat her story word by word. Without the tele-coaching, her story might have remained untold. (Coach X)

It's important to take the viewpoint of the subject. Listening is everything. I think that close listening to the subjects was indeed useful. (Coach Z)

3.2.2. Acknowledgment

The coaches felt that persistent efforts to acknowledge the subjects helped to encourage the subjects to confirm their own efforts and advantages. When their efforts were acknowledged, the subjects had the opportunity to recognize their positive impacts on others as they set their goals and took on concrete behaviors. They consciously used the following acknowledgement techniques, as they befitted the scene, in order to convey appropriate acknowledgement based on their findings from close observation during the tele-coaching: The "You" stance acknowledgement where "You" is the subject of a sentence; The "I" stance acknowledgement where "I" is the subject of a sentence; and The "We" stance acknowledgement where "We" is the subject of a sentence.

I mostly used the "I message" for acknowledgement. I told the subject, for example, "I'm impressed by the way you're doing that," or, "I'm very glad you did it that way." The knack for the technique is just to use it. (Coach X)

Acknowledgement is basically very effective. When you say, "I've noticed that you're now speaking louder than before," the sentence includes an acknowledgement. One of my favorite acknowledgements is to tell the subject, "I think your behavior is always great, as long as it satisfies you." (Coach Y)

I asked the subjects about things that they were able to continue. It could be any type of activity, no matter how trivial. When they answered, I acknowledged it verbally with a statement such as, "Oh, it's great that you can still do that kind of thing." It's very effective to express acknowledgement verbally. (Coach Z)

3.2.3. Encouraging the subjects to envision what the future holds in store

The coaches recognized that it was effective to ask a succession of concrete, easy-to-answer questions in a timely manner, as it befitted the current communication. This inspired the subjects to see things from new perspectives and envision what might lie ahead for them in the future.

In general coaching such as coaching for business, subjects are asked to express their goals or visions by answering questions such as "What would you like to achieve?" When coaching patients with incurable diseases, I thought it would be wonderful if the subjects could come to talk about their goals or visions over shorter time frames, such as the next two to three months. (Coach Y)

Motivations expressed verbally aren't always true. Once a subject clarifies what he or she really wants to do, the later stage doesn't have much to do with what was mentioned as a motivation in the beginning. A subject won't see things from a wider perspective until his or her words and behaviors start changing. (Coach Y)

3.2.4. Encouraging the subjects to recognize positive aspects and different perspectives

As the subjects considered their concrete daily behaviors in light of their own visions for the future, the coaches recognized that it worked well to acknowledge the comments of the subjects and then propose different perspectives. This coaching tactic – propos-

ing different perspectives – was intended to encourage the subjects to recognize positive aspects of both their own perspectives and different perspectives on the same phenomena. The subjects were not expected to simply agree with the proposals or to behave in accordance with them.

If you propose that a subject pursue a goal set too low (“Why don’t you try this?” or “You should do that”), the subject is likely to tell you that he has already tried and failed. But if you remind the subject by asking, “You could do this before, couldn’t you?” things will move forward little by little. In time, you’ll notice the change. (Coach Y)

I tried to encourage the subjects to start things (e.g., “In that case, why not do this?”) over a short time frame without any expectation of achievement as a long-term goal over the next two years. More specifically, I asked the subjects about their intentions during each coaching session (e.g., “What are you going to do by the next week?”). (Coach Z)

3.3. Evaluations of the tele-coaching functions by the intervention subjects

3.3.1. Telling stories of my own in a daily-life setting

The subjects indicated that the tele-coaching gave them opportunities to be heard by others without interruption and to have conversations in a relaxed manner at home, in their daily-life environment. They felt that they had the ear of the coach, who listened attentively from the start of the session to the end without contradicting them or interposing objections.

Using the telephone helped me speak out more easily than I expected. You can sometimes talk to people better without having to see them face to face. (Subject A)

In short, the coach drew me out and made me want to talk. He listened silently and quietly to my desultory gossip. I talked on too long every session, but he never interrupted me. (Subject B)

The earnest listening of the coach somehow helped me to feel accepted. “Don’t worry,” he told me, “every story is important.” He listened silently every week and never tried to lead me on to conclusions. That simple activity – me talking, him listening – comforted me greatly. Just knowing that someone was there listening gave me peace of mind. The pace of the sessions was also good: they progressed little by little without forcing anything. The use of the phone was also convenient, as I could receive the calls at my own home. Maybe I found it relaxing to talk by voice without seeing the face of my conversation partner. (Subject I)

3.3.2. Awareness of a fresh point of view

The subjects were pleased to have had the opportunity to reconsider what they wanted to do or what they would be able to do for themselves, as well as to recognize fresh points of view.

I was very negative about myself before I started the tele-coaching. I was trapped in the mindset that the disease would prevent me from doing anything. Soon after I started the tele-coaching sessions, my aspirations to do things by myself were renewed. (Subject I)

The coaching seemed to relieve me of a depressing feeling, or to push the feeling away. Now that several years have passed since I received the tele-coaching, I feel the good those interactions over the phone have done me. The experience convinced me that I should try things by myself. The tele-coaching changed my way of thinking. It convinced me that there must be things I can do. It saved me from the feeling of helplessness, of being powerless to act, because of my disease. (Subject I)

3.3.3. Making a new start for something possible and continuing with it

The subjects indicated that the tele-coaching induced them to start something that was within their power to accomplish, by taking actual steps. They also found that the tele-coaching was conducive to their success in continuing their endeavors. The coaches periodically asked the subjects about their endeavors and acknowledged changes in the subjects or their efforts.

Before receiving the tele-coaching, I never tried to do much of anything. And when I did start something, I’d give it up quickly. Later, after my coaching sessions, I felt a genuine desire to act . . . I felt like I must start something, or think of a way to progress, because my coach would ask me about it again in the next week. (Subject A)

I couldn’t admonish people who cut in line in front of me. When I told my coach about this aversion of mine, he urged me to speak up in those situations. Since then I’ve been able to stand up to badly mannered people when necessary. (Subject A)

. . . My coach praised me for my efforts. He would tell me things like: “How impressive that you’re doing such a thing,” or “I find that informative and interesting”. (Subject B)

. . . I looked forward to the call from my coach on the appointed day. It encouraged me. In the hours before the call, I’d think of things I could do to

report to the coach. The tele-coaching encouraged me to act. (Subject G)

The coach taught me the actions I should take, and in what order. He gave me a concrete awareness of what I wanted to do myself, and this triggered a recovery. (Subject H)

... The coach praised me for certain things I'd done, and then he encouraged me to do more in the next week. "Why don't you do this as your next target?" he suggested. Every target he chose was more demanding than the last, but never beyond my powers to accomplish. (Subject H)

4. Discussion

4.1. Effective approach throughout the intervention

One function that worked effectively throughout one entire course is the function recognized by the coaches as "listening" or "acknowledgement" and recognized by the subjects as "enabling me to tell a story of my own in a daily-life setting." The coaches and subjects shared the various intense emotions experienced by the subjects throughout the ten sessions of the course, including a sense of despair, various other negative emotions, and personal identification with the disease experiences of their relatives. Characteristically, the coaches verbally expressed a strong interest in the stories of the subjects and provided positive feedback to the subjects without interposing criticisms. The subjects were thus found to exhibit positive emotions, including positive emotions in association with goals and changes, but only after expressing negative emotions about their future visions and about the difficulties of their diseases for a certain period. These findings suggested that the "listening" and "acknowledgement" techniques in tele-coaching may help to establish confidential relationships and to support/strengthen positive emotions by encouraging the subjects express negative emotions with peace of mind.

The subjective evaluations by the coaches and intervention subjects were mostly about linguistic communication. Evaluations about non-linguistic communication were limited. Given the limited specificity of communication over the phone, a medium where non-linguistic communication is difficult, this was thought to be influenced by consciously deployed tactics in linguistic communication. The voice-only mode of communication without face-to-face interaction is thought to have been effective for the study subjects with mobility impairment and dysarthria, as it was convenient and relieved feelings of tension.

4.2. Effective skills at each step of tele-coaching (Table 2)

In introductory icebreaking step, the coaches seemed to use their own judgment to establish, based on the personalities of the subjects or the characteristics of communication with them, settings that would encourage the subjects to tell stories of their own with peace of mind. The functions effectively working in the icebreaking step seem to have included a function recognized by the coaches as "listening" or "acknowledgement" and recognized by the subjects as "enabling me to tell a story of my own in a daily-life setting."

The next step, pre-coaching, seems to have included a function to encourage the subjects to set their own sights on goals or on the desires latent in themselves. This came after the coaches had time to hear about the present conditions of the subjects, including the disappointment of the subjects in their views of the future and their efforts in their present-day lives. The functions effectively working in the pre-coaching step seem to have included a function recognized by the coaches as "encouraging the subjects to become aware of the visions latent in themselves" and recognized by the subjects as "awareness of a fresh point of view."

The next step, coaching flow/refrain, seemed to help the subjects identify the positive and negative emotions in their daily behavior in light of the goals and desires they were encouraged to discover. This step was thought to have been an opportunity for the subjects to learn of diverse ways of thinking and to positively evaluate themselves. The coaches encouraged this by offering proposals on positive aspects of actual situations and issues which confronted the subjects and drew out negative emotions. The functions effectively working in the coaching flow/refrain step seem to have included a function recognized by the coaches as "listening," "acknowledgement," or "encouraging the subjects to become aware of positive aspects or different points of view," and recognized by the subjects as "making a new start towards something possible and continuing with it."

The function that worked particularly well in the last step, evaluation, seems to have been a function recognized by the coaches as "acknowledgement" and recognized by the subjects as a second "awareness of a fresh point of view." The evaluation step seems to have given the coaches and subjects the opportunity to look back at their situations before and after the tele-coaching intervention for review, and to have given the subjects the opportunity to talk about their visions for the future.

Table 2
Effective skills at each step of tele-coaching

Step	Tele-coaching functions evaluated as effective	
	Coaches	Intervention subjects
Icebreaking	<ul style="list-style-type: none"> - Listening - Acknowledgement 	<ul style="list-style-type: none"> - Enabling me to tell a story of my own in a daily-life setting
Pre-coaching	<ul style="list-style-type: none"> - Listening - Acknowledgement - Encouraging the subjects to become aware of the visions latent in themselves 	<ul style="list-style-type: none"> - Enabling me to tell a story of my own in a daily-life setting - Awareness of a fresh point of view
Coaching flow/refrain	<ul style="list-style-type: none"> - Listening - Acknowledgement - Encouraging the subjects to become aware of positive aspects or different points of view 	<ul style="list-style-type: none"> - Enabling me to tell a story of my own in a daily-life setting - Encouraging me to make a new start towards something possible and to continue with it
Evaluation	<ul style="list-style-type: none"> - Listening - Acknowledgement 	<ul style="list-style-type: none"> - Enabling me to tell a story of my own in a daily-life setting - Awareness of a fresh point of view

4.3. Comparisons with findings from the United States and Europe

Tele-coaching has been reported to be useful in the behavior management of patients with cancer and cardiac diseases in the United States and Europe. Sacco et al. studied 10 subjects with type I diabetes mellitus (aged from 18 to 50 years old) divided into two groups, an intervention group of five subjects and a control group of five subjects. After providing telephone coaching sessions of 15-minutes to the intervention group once per week or once per fortnight for 6 months, they observed a 1.2% decrease of HbA1c in the intervention group and a 0.8% increase of HbA1c in the control group [12]. Vale et al. divided a population of 245 patients hospitalized for treatment of coronary artery diseases into two groups, an intervention group consisting of 121 subjects who underwent five sessions of telephone coaching in five successive 6-month periods, and a control group of 124 subjects who received no telephone coaching. The total cholesterol value and low density lipoprotein-cholesterol value were found to be significantly lower in the intervention group than in the control group at the end of the study. This proved that coaching was as efficacious as or more efficacious than hyperlipidemia therapy alone. Vale's group insisted that the efficacy of coaching could be explained by compliance with the drug therapy and advice on diet [18]. Later, the same group expanded their study by providing a similar coaching program to 398 patients hospitalized for coronary artery disease and comparing their progress with that of 394 control subjects treated by the usual medical management alone. The coaching was provided by nutritionists or coaches over the phone in combination with software and e-mail. As a result, Vale's group reported that the total cholesterol value, a risk factor for recurrence of coronary artery

diseases, decreased significantly more in the coaching intervention group (by 21 mg/dL) than in the controls (by 7 mg/dL) [19]. In a study by Lynch et al., 17 subjects with melancholia (aged 60 or older) treated by dialectic behavior therapy (a 2-hour group therapy and a 30-minute telephone coaching session every week for 28 weeks) together with the ordinary treatment showed improvement in the self-administered depression scale, whereas a control group of 17 subjects who received only the ordinary treatment showed no improvement whatsoever [7]. Oliver et al. divided a population of 77 subjects (18 to 75 years old) with moderate cancer pain for 2 weeks or longer into two groups, an intervention group of 34 subjects and a control group of 33 subjects. Two weeks after receiving 20-minute education and coaching sessions through individual interviews, the patients in the intervention group reported improvement in pain severity [9].

Taken in sum, these earlier reports indicate that patients who received coaching in addition to conventional treatments showed better results in blood sugar control, blood cholesterol levels, depression, and pain index, respectively, than groups treated with the conventional treatments alone. The various methods of coaching range from periodical telephone calls from grad students in psychology departments to group classes. The findings of the above studies suggest that coaching may promote self-discipline, drug compliance, communication with physicians, consent to treatment regimen, and self-efficacy.

Few studies have revealed the impact of tele-coaching on patients with intractable diseases, including intractable neurological diseases. According to the analysis in this study, however, the intervention subjects felt, in their subjective evaluations, that the tele-coaching enabled them to tell their own stories in a daily-life setting, encouraged them to experience and

adopt fresh points of view, and helped them start working towards attainable goals without giving up. Our results indicate that it was especially important to help patients with intractable diseases to become aware of goals and desires latent in themselves before preceding to the next coaching step of "planning and working towards goals" – a conventional step in coaching for business and in other fields. The time frame for coaching may be extended in the future, when so required for the treatment of the medical and mental conditions of the subjects.

4.4. Limitations of the study and future issues

To cite one limitation in this study, no steps were taken to analyze whether factors such as gender, age, progress, prognosis, stress during the tele-coaching period, or differences between hereditary and non-hereditary diseases influenced the tele-coaching process. Further analyses in the future will need to account for these factors. Moreover, because this study was conducted by Japanese researchers with Japanese patients, comparative studies will be required to discover whether results are more explained by culture or by patient characteristics, including diagnosis. We should also note that the extracted functions rated as beneficial in the subjective evaluations of the coaches and subjects were not necessarily evaluated as beneficial by all of the intervention subjects. Given that subjective evaluations for benefits vary among individuals, additional research may indicate what benefits patients hope to receive from tele-coaching as well as which patients are most likely to benefit from it.

The criteria, tools, and human resources for managing the diverse ethical issues in the treatment of patients with intractable neurological diseases are still limited. To develop and disseminate tele-coaching as a communication intervention method for maintaining and improving the quality of life of patients with intractable neurological diseases, it will be necessary to accumulate more and better information on tele-coaching techniques and to verify their efficacy.

5. Conclusion

In this study, the subjects with mobility impairment and dysarthria were thought to benefit from the voice-only mode of communication without face-to-face interaction, as the communication was less stressful and could take place in the convenience of their own homes.

One function that worked effectively throughout one entire course was the function recognized by the coaches as "listening" or "acknowledgement" and recognized by the subjects as "enabling me to tell a story of my own in a daily-life setting." The subjects were found to exhibit positive emotions, including positive emotions in association with goals and changes, but only after expressing negative emotions about their future visions and about the difficulties of their diseases for a certain period. These findings suggested that the "listening" and "acknowledgement" techniques in tele-coaching may help to establish confidential relationships and to support/strengthen positive emotions by encouraging the subjects express negative emotions with peace of mind.

Few studies have revealed the impact of tele-coaching on patients with intractable diseases, including intractable neurological diseases. According to the analysis in this study, however, the intervention subjects felt, in their subjective evaluations, that the tele-coaching enabled them to tell their own stories in a daily-life setting, encouraged them to experience and adopt fresh points of view, and helped them to start working towards attainable goals without giving up. Our results indicate that it was especially important to encourage patients with intractable diseases to become aware of goals and desires latent in themselves before preceding to the next coaching step of "planning and working towards goals" – a conventional step in coaching for business and in other fields. The time frames for coaching may be extended in the future, when so required for the treatment of the medical and mental conditions of the subjects.

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●介入研究(臨床試験)

コーチング技術を応用した神経難病患者に対する心理社会的介入

Psychosocial intervention using coaching skills for patients with neurodegenerative diseases

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神経難病はその多くは進行性であり、有効な治療法が少なく、徐々に身体機能の障害をきたす。また、行動が制限されて廃用症候群や心理的問題など、二次的な障害が発生することが少なくない。このような状況においては、患者が無力感を克服して行動の自由が確保できるように援助することが求められる。一方、コーチングとは、相手の自発的な行動を促進するプロセス。コーチングの技術である。本研究では、身体動作のほぼ自立した脊髄小脳変性症患者を対象として、10回15~30分間、ほぼ10回の頻度で全10回かかるとはほぼ同様のコーチング介入を実施した。その結果、介入群は対照群よりも自己効力感(自分には必要なことを実行できる力がある)と「信念」の高まること示された。今後はさらに有効性を確かめるための大規模な臨床研究、および有効性の機序を明らかにするメカニズム的研究、さらにコーチング技術の医療への応用を促進する方策の確立が必要である。

Keywords

コーチング, 脊髄小脳変性症, 遠隔医療, 自己効力感(self efficacy), 物語に基づく医療(narrative-based medicine)



非薬物的介入としてのコーチング

1. 神経難病とQOL

難治性疾患の患者や家族は疾病とその予後についての不安のみならず、症状や障害が長期化、重度化するに伴って、経済的な問題や生活・将来についての不安など、多くの問題を抱えることとなる。このような難治性疾患においては治療法の開発を進めるだけでなく、患者のQOLの向上をはかることが重要であり、限られた範囲ではあるが、患者がコントロール能力を回復し無力感を克服して行動の自由が確保できるように援助することが求められる。

神経難病はその多くは進行性であり、有効な治療法が少なく、徐々に身体機能の障害をきたす。筋萎縮性側索硬化症、脊髄小脳変性症、Parkinson病、多発性硬化症などがあるが、神経症状から行動が制限されて廃用症候群や心理的問題など、二

次的な障害が発生することが少なくない。実際、Parkinson 病患者の健康関連 QOL(HRQOL)を調査した研究では、心理的適応が疾患の重症度よりも HRQOL と強く相関したことが示されている¹⁾。したがって、心理的適応を促進することができれば、これら神経難病患者の HRQOL を高めることにつながる可能性がある。

2. コーチングとは

“コーチング”は“相手の自発的な行動を促進するコミュニケーションの技術”と定義され、1980年代にアメリカでスポーツ、ビジネス、教育、個人的成長などの分野に導入されて大きな成果を發揮したコミュニケーション形態である。

コーチングはおもに定期的な会話を通して進められる。それぞれのセッションでコーチは、聞く、質問する、承認を与える、提案する、などの会話スキルを用いながら、つぎの6つのステップを通してクライアントが望む状態に最短の時間で到達できるように援助する。すなわち、①ラボールの

形成, ②目標の設定, ③現状の把握, ④目標と現状のギャップ(能力, 道具, 環境などの不足や脆弱性)の明確化, ⑤ギャップを埋めるために必要な行動の計画, ⑥行動の結果や経過のフォローを行い, 以上のプロセスをコーチングフローとよぶ。また, コーチングは会話だけで行うのではなく, コーチはインベントリーやメールなどの道具を必要に応じて, そしてクライアントのコミュニケーションスタイルに合わせて柔軟に使用する。

コーチングにおける会話には, interactive, ongoing, tailor-made という3つの特徴がある。会話はおもにクライアントが話し, コーチが聴くという形で進められるが, コーチは上述のように質問, 提案, 要望などを適宜行う。このときコーチとクライアントは対等であることが前提となる。また, “いま, ここで”のコミュニケーションを扱い, 目標やその達成度も個別に設定され, 評価される。

3. 医療とコーチング

文献を検索できた範囲で, 医学誌に介入方法としての“コーチング”が登場したのは1990年代後半である。日本でも杏林大学の柳澤らはコーチングと同様の手法を用いた Life-style Improvement Program (LIP)を心筋梗塞後の患者に行い, 狭心症発作の減少などを認めた²⁾。

コーチングを用いた研究として, これまでに糖尿病, 高脂血症, 癌性疼痛などでの論文がある。Saccoら³⁾は, 18~50歳の1型糖尿病患者10人を介入群5人と対照群5人に分け, 介入群には1~2週間に1回15分間の電話によるコーチングを6カ月間にわたって行った結果, HbA_{1c}が介入群で1.2%減少したのに対して, 対照群では0.8%増大したと報告した。Valeら⁴⁾は, 冠動脈疾患の治療で入院した患者245人を介入群121人と対照群124人に分け, 介入群に対しては6週間ごとに電話によるコーチングを計5回行った。その結果, 介入群で総コレステロール値とLDL-コレステロール値が対照群よりも統計学的に有意に低く, コーチングを受けることは高脂血症治療薬と同等の効果を有した。同グループはさらに研究を拡大

し, 上記と同様のコーチングプログラムを冠動脈疾患で入院した患者398人に行い, 対照群394人と比較した。その結果, 介入群では冠動脈疾患再発の危険因子である総コレステロール値が21 mg/dl 減少したのに対して, 対照群では7 mg/dl の減少にとどまったと報告している⁵⁾。Oliverら⁶⁾は, 18~75歳で2週間以上中等度の癌性疼痛を有する患者77人を介入群34人と対照群33人に分け, 介入群には20分間の個別面談による教育とコーチングを行った結果, 2週間後の疼痛重症度が介入群で改善していたと報告した。

以上をまとめると, コーチングを使うことにより通常の診療だけの場合よりも, それぞれ血糖・脂質のコントロールや, 疼痛尺度の結果が良好であったと記載されている。有効性の機序として, これらの論文では自己管理の促進, 服薬の遵守, 医師との意思疎通, 治療方針の合意, そして自己効力感の向上などが考えられるとしているが, 証明されていない。また, コーチングが難治性疾患患者に与える影響を明らかにした研究はなかった。

そこで著者らは, 神経難病患者に対するコーチングの有効性を検討するパイロット研究として, 脊髄小脳変性症患者に対する電話によるコーチング(テレコーチング)介入が患者の心理的適応やHRQOLに与える影響を検討した⁷⁾ので, その概略を紹介する。なお, これまでの報告ではコーチングの構造がかならずしも明記されておらず, また医療上のアドバイスを行うなど, coaching というよりはteachingの要素が含まれていたが, 本研究では医療上のアドバイスは行わないことを対象者と合意してコーチングが行われた。

● 脊髄小脳変性症患者へのコーチング介入効果——ランダム化比較試験

1. 対象

脊髄小脳変性症患者24人, 介入群, 対照群それぞれ12人とした。選択基準として神経内科外来に通院し, 脊髄小脳変性症の確定診断後半年以上経



図1 電話によるコーチングの実際
コーチはヘッドセットを着け、キーボードで会話内容を同時に、あるいはセッション後に入力した。

過している20～65歳の患者で、身辺動作はほぼ自立し、認知機能障害や精神疾患がなく、テレコーチングを希望するものとした。本研究は東北大学大学院医学系研究科倫理委員会の承認を受け、すべての参加者から文書による同意を得た。

2. 方法

介入方法は3カ月間、全10回、1回15～30分間の電話によるコーチングとした(図1)。3名のコーチ経験保有医師がコーチを担当した。各対象者をひとりのコーチが担当した。また、介入の質を均一に保つために週1回、15～30分のコーチ間電話会議をもった。アウトカムはHRQOL尺度であるSF-36日本語版⁹⁾と、疾患への心理適応の尺度であるNottingham Adjustment Scale日本語版(NAS-J)⁹⁾を用いた。副次的尺度として、日常の身辺動作の自立度尺度であるBarthel Indexを評価した。表1に本研究におけるコーチングの実施要領を示す。

対象は介入群または対照群にランダムに割り付けられた。介入群には3カ月間のコーチングを行い、対照群には3カ月間の待機後に、3カ月間のコーチングを行った。コーチングあるいは待機の直前と直後に評価を行った(図2)。

3. 結果

25人がエントリーし、1人が脱落した。脱落理由は、疾患の進行により受話器を15分以上もち

続けることが困難になったためであった。24人で所定のコーチングセッションが行われ、データ回収率は100%、事前連絡なしのコーチング実施不能は0%であった。表2に参加者の属性を示す。介入群と待機(対照)群との間に性、年齢、診断名の差はみられなかった。ベースラインのHRQOLは、国民標準値と比較して全体的に低いQOLを示した。とくに身体機能、日常役割機能(身体)、全体的健康感が1SD以上低い得点を示した。一方、体の痛み、活力、心の健康は国民標準値とほとんど変わらなかった(表3)。

介入群と対照群のSF-36、NAS-Jのベースライン得点に統計学的有意差はみられなかった。

分散分析で、期間の効果、群の効果、交互作用の検定を行った結果、“活力”、“不安・うつ”、“ローカスオブコントロール”に有意な期間の効果がみられた。これは、介入群も対照群も3カ月後に有意に得点が高くなったことを示している。群の効果、交互作用効果はみられなかった。

つぎに性、年齢、ベースラインの得点を共変量として共分散分析を行い、介入群と対照群の3カ月後の推定平均値を求めた。その結果、介入群は対照群と比較して“自己効力感”(自分には必要なことを実行できる力があると感じる程度)が有意に高かった($p=0.037$)。その他の下位項目には、両群間に有意差はみられなかった。

Barthel Indexはベースラインも3カ月後も介入群と対照群との間に差はなく、それぞれの群でベースラインと3カ月後との間に差はみられなかった。

対象者のひとりには、コーチング後に介護保険請求代行サービス会社を設立した。3カ月間のコーチング期間中に思い立ち、計画を立て、コーチング後に通信教育を受けて市場調査を行い、コーチング終了半年後に営業を開始した。この患者は“コーチングのおかげで情報にアンテナを立て、行動に移すことができた”と述べている。

4. 考察

構造化されたコーチングは“自己効力感”を高めると示唆された。また、介入・待機にかかわら

表 1 神経症病コーチング実施要領¹⁰⁾

<p>1. 目的 コーチングでは、目標を達成するために必要な技能や知識、社会資源などが何であるかをみつけ出し、それをクライアントに備えさせることを目的として、対等な関係で会話を進める。</p> <p>2. 対象 1) コーチングを受けることに同意した身辺動作の自立した在宅成人患者 2) 20分間電話で話しをすることができる人 3) うつ病などの精神疾患に罹患していない人 4) 失語症、記憶障害、遂行機能障害などの認知機能障害がない人</p> <p>3. コーチングの準備 1) Narrative therapy の技術についてコーチはわきまえておく必要がある。 2) (そのプロジェクトに参加する)コーチのメーリングリストを作成する。 3) 事務局とデータセンターの担当者を決める。作業の実際は別項に記載する。 4) 週1回程度電話会議をもって、コーチがコーチングを受ける。</p> <p>4. コーチングの構造 1) コーチ、事務局、データセンターによってチームが組織され、個人情報は保護される。 2) 1セッションは15~30分とし、1クールは10セッション、3カ月を目安とする。 3) コーチングの個々の技術については文献^{10)~12)}に記載されている。</p> <p>5. コーチングの手順 1) あらかじめ決められた時刻にコーチがクライアント(患者)に電話をかける。 2) それぞれのセッションでつぎのステップを踏み会話を進める。さらに10回のセッション全体がこのステップを踏むように構成される。</p> <p>①アイスブレイク ②プレ・コーチング ③コーチング・フロー ④リフレイン ⑤エヴァリュエーション <アイスブレイク> ・緊張を解き、会話できる状態をつくる。 <プレ・コーチング> ・その日のクライアントの状態、話題にしたいことを聴取する。 <コーチング・フロー> ・聞く、質問する、承認を与える、提案する、などの会話スキルを用いる。 ・目標と現状を明らかにしていく。 ・目標と現状のギャップを生じているものを明らかにする。 ・必要な技術や道具を備え、あるいは環境を整えるための行動計画を立てる。 ・行動の結果や経過をフォローする。 <リフレイン> ・今日はこういうことしました、と確認する。 <エヴァリュエーション> ・今日のコーチングでどのようなことがあったかを尋ねる。 ・評価では、コミットメントが上がったか、視点は変わったか、具体的な提案はあったか、未完了なことが完了したか、に留意する。 ・完了感をもたせるために、宿題を出すことや、「もうちょっと話したいことはあるか」と尋ねることがある。</p> <p>3) 10回のセッションの流れ ・第1回はアイスブレイク ・第2回と第3回はプレ・コーチングであり、ビジョンメイキング(目標設定)とコミュニケーションインベントリーを行う。1回目終了直後に「2年後のビジョン」ワークシートを郵送し、2回目までに返送していただく。2回目終了直後に「コミュニケーションインベントリー」を郵送し、3回目までに返送していただく。2回目と3回目はそれぞれのワークシートをコーチとクライアントがみながら進める。 ・早い段階で評価計画を行い、あらかじめコーチングの成果を評価する方法・尺度を決めておく。これは研究のアウトカムとは別に、個々のクライアントに対して行う。</p> <p>6. 評価 1) QOL 尺度。心理的適応尺度を、コーチング直前、10回終了直後に測定し、その後もフォローする。 2) 会話とクライアントの物語を質的に評価する。 3) 4回目終了時と8回目終了時に、クライアントからコーチへのフィードバックを行う。</p> <p>7. ツール 1) SF-36(健康関連 QOL 尺度): 下位尺度として「身体機能」、「日常役割機能(身体)」、「体の痛み」、「全体的健康感」、「活力」、「社会生活機能」、「日常役割機能(精神)」、「心の健康」がある。 2) NAS-J(疾病への心理的適応尺度): 下位尺度として、「不安・うつ」、「自尊心感」、「疾病への態度」、「ローカスオブコントロール」、「疾患の受容」、「自己効力感」がある。 3) 2年後のビジョン(オリジナルのワークシート) 4) コミュニケーションインベントリー(オリジナルのワークシート) 5) コーチへのフィードバックシート(オリジナルのワークシート)</p>

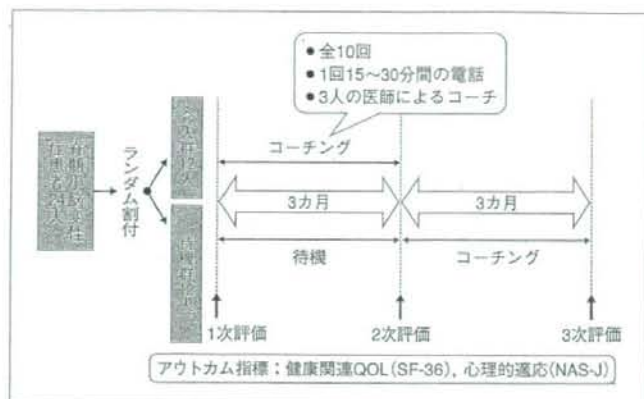


図2 コーチング介入研究のフロー図

表2 コーチング介入対象者24人の属性 (n=24)

年齢	平均	(SD)	47.9 歳	(12.0)
性別	男性	(%)	14 人	(58.3%)
	女性	(%)	10 人	(41.7%)
診断	非遺伝性	(%)	5 人	(20.8%)
	遺伝性	(%)	19 人	(79.2%)

ず、試験に参加すること自体によって活力、不安・うつ、ロカスオブコントロールが改善したと推測された(Hawthorne effect)。

本研究では電話によるコーチングを採用した。電話の利点として遠隔地からの介入が可能で、時間と場所の選択の幅が広いこと、クライアント側からは自分のリラックスできる場所で話しやすいことがある。声の調子から感情を推察できるので、

表情をみられないことの欠点はあまり問題とならなかったと思われた。欠点として受話器をもつことが困難な患者は参加できず、実際1人はこの理由で脱落した。

コーチング介入には個別性が求められるが、研究としては均質である必要がある。事前にコーチング10回の構造を決め、さらに毎週コーチ会議をもったことで介入の均質性が保たれたと思われる。また、コーチングのような人による介入においては、研究上の役割を明確にして連絡をスムーズに行う仕組みをつくることにより、介入自体の効果と研究の質を高めることができると考えられる。今後の研究においては、人的資源を含めた事務局リソースを整えることが必要である。

クライアントが会社を設立した例は研究者に

表3 対象者(神経難病患者)の健康関連QOL: 国民標準値との比較

SF-36 下位尺度	n	平均値	標準偏差	p(国民標準値との差)
身体機能	24	31.1	17.6	<0.001
日常役割機能(身体)	24	38.8	11.6	<0.001
体の痛み	24	51.7	11.3	0.452
全体的健康感	24	39.0	7.4	<0.001
活力	24	46.2	10.8	0.098
社会生活機能	24	41.2	15.0	0.009
日常役割機能(精神)	24	43.1	14.4	0.028
心の健康	24	46.2	11.4	0.115

p値は1標本t検定により、各下位尺度の平均値と国民標準値(=50)との差を比較した結果を示す。

とって驚きであり、大きな喜びであった。有効性の機序やアウトカムスケールに現れない効果を検討するためには質的研究が必要である。著者らは、コーチング会話記録、コーチへのインタビュー、および対象者へのインタビューをすでに行った。その内容分析の結果は別に報告する予定である。今後は、長期的にコーチングを継続することで心理的適応の改善が QOL の向上あるいは維持につながるかなども含めて、大規模な研究が必要であろう。また、コーチングは、家族や医療従事者にも応用できる可能性がある。

コーチング技術についてはすでに多くの出版物があるが、医療分野、とくに对患者への応用についてはさまざまな注意や工夫が必要であり、文献¹⁰⁻¹²⁾をご覧ください。また、コーチングはスポーツ技能と同様、本を読んで理解するだけでなく、実際に使うことで習得することができる。そのためには実習を取り入れた研修が必要であると考え、著者らは脳卒中患者の外来診療を担当する医師、ケアマネージャー、および保健師をそれぞれ対象とした研修会を実施しており、今後その効果を検証する予定である。

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