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Discontinuation Rate, Remission Rate, and Social Functioning in Patients with Schizophrenia Receiving Second-Generation Antipsychotics: 52-Week Results of a Randomized Open-Label Trial (JUMPs)

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Abstract

In the long-term treatment of schizophrenia, clinical decisions regarding the selection of antipsychotic medications must take into account not only efficacy and side effects but also a variety of factors such as quality of life (QOL), social functioning, mood, cognitive function, medication comfort, and cost. However, it is not easy to make a comprehensive judgment encompassing all these elements. In order to align perceptions among clinicians and between physicians and patients, it is necessary for the usefulness of a drug to be evaluated and shared through a simple indicator that reflects its overall utility. The Japan Useful Medication Program for Schizophrenia (JUMPs) was conducted based on this recognition, with the aim of providing beneficial data on antipsychotic treatment in Japan through a randomized open-label trial. This paper presents the results from the first 52 weeks. The discontinuation rates for any reason for aripiprazole, blonanserin, and paliperidone were 68.3%, 68.2%, and 65.5%, respectively. Although there were no significant differences among the drugs, an examination of the reasons for discontinuation revealed some characteristic tendencies for each drug. The remission rate increased week by week during the observation period. The successful execution of this study demonstrated that large-scale empirical research is feasible in Japan.

Furthermore, the findings clarified that the discontinuation rate is a valid comprehensive indicator of the usefulness of antipsychotics. It is expected that similar studies will be actively conducted in the future, and that the development of a database will contribute to the advancement of new drug development and the promotion of public health.

Keywords: second-generation antipsychotics (SGA), discontinuation rate, remission rate, social functioning

Introduction

How should second-generation antipsychotics (SGAs) be selected based on rational evidence? This question has existed since antipsychotics were first introduced into psychiatric care, and yet a decisive method has not been identified to date. However, with advances in pharmacotherapy and the accumulation of data, a definite direction has begun to emerge.

Because treatment for schizophrenia patients is long-term, the evaluation and assessment of each drug must also be approached from a long-term perspective. In the ever-changing clinical setting, it is preferable for judgment criteria to be as simple as possible. This makes it easier to later verify whether the decisions made at each point in time were appropriate. However, for a long time, there has been a lack of long-term study data necessary for establishing reliable evaluation criteria, and the last century ended without achieving a well-validated

indicator of drug usefulness. Most of the high-quality data used to assess SGAs have been derived primarily from short-term studies, such as clinical trials lasting only several weeks. Moreover, the available data are usually presented separately in two distinct evaluation systems: efficacy (typically indicated by a reduction in symptom-rating-scale scores) and adverse events, which cannot be easily integrated. When selecting a medication, it is necessary to make a comprehensive clinical judgment that considers both aspects. This judgment also involves non-scientific elements such as healthcare costs, which means that different decision-makers may select different medications even when reviewing the same data. Furthermore, it remains unclear whether decisions based on short-term data can be extrapolated to long-term usefulness. For a long time, treatment decisions were made through trial and error over the course of ongoing care.

Previously, based on the above discussion, the author argued that, in order to make a comprehensive judgment regarding the selection of SGAs, the concept of effectiveness* should be introduced. As indicators of this effectiveness, both the discontinuation rate (specifically, its low level) and remission rate should be adopted.⁶⁾ Figure 1 summarizes this concept. In the short term (early after initiating treatment), medication selection is based on experiential knowledge that considers both efficacy and side effects. Over the long term, however, a wide range of factors such as quality of life (QOL), social functioning, mood, cognitive function, medication comfort, and cost must be considered. Although the effects of pharmacological interventions on each of these factors can be measured scientifically on an individual basis, it is not easy to integrate them into a comprehensive evaluation and rationally translate that into a single decision regarding SGA selection. Therefore, concerning long-term treatment, there is a need for a comprehensive indicator that reflects effectiveness. Positioned as such comprehensive indicators are two key measures: the discontinuation and remission rates. These represent the true effectiveness of SGAs in real-world clinical practice. In long-term SGA treatment, a low discontinuation rate

indicates a baseline level of treatment success, while a high remission rate indicates the potential to achieve excellent treatment outcomes. Additionally, although recent clinical practice guidelines were generally developed based on the best available evidence, the scarcity of reliable long-term real-world evidence is one of their limitations. Research on effectiveness could serve as valuable complementary data for the development of such guidelines.

The Japan Useful Medication Program for Schizophrenia (JUMPs) study, introduced in this paper, was planned based on the above considerations and aimed to evaluate the real-world effectiveness of SGAs. It was the first large-scale, randomized, open-label trial of its kind conducted in Japan.⁸⁾ While the study design was based on referring to previous overseas trials such as the CATIE study,¹¹⁾ this type of naturalistic research is heavily influenced by national healthcare systems and the availability of approved medications. Therefore, the findings of overseas studies cannot be directly extrapolated to Japanese healthcare. As a result, it was considered important to generate domestic data, leading to the launch of the JUMPs study.

I. Methods and Results

1. Methods

Methodological details of the study were reported previously in the published protocol paper.⁷⁾

The second-generation antipsychotics (SGAs) evaluated in the study were: aripiprazole (ARP), blonanserin (BNS), and paliperidone (PAL). Following random assignment, the study drugs were administered in an open-label manner and observed accordingly. These three SGAs were selected because they had not been included in similar previous international studies and were the most recently approved antipsychotics in Japan at the time the trial was planned (2013). Use of the assigned medication was restricted to the conditions described in the package inserts, but all other aspects of use were left to the discretion of the treating physician. If the assigned medication was discontinued, treatment was continued with medications other than the three study drugs, and the patient remained under observation.

Eligible participants were patients aged 20 years or older diagnosed with schizophrenia according to the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR), who either required initiation of antipsychotic treatment or needed to switch from a previous medication for any reason, and who provided written informed consent to participate.

Primary outcome measures were discontinuation and remission rates. In addition, two clinically important long-term outcome indicators: the Personal and Social Performance Scale (PSP) and EuroQol-5 Dimensions (EQ-5D), were also implemented.

The remission rate was calculated based on the criteria proposed by Andreasen et al.¹⁾ using the Positive and Negative Syndrome Scale (PANSS). To our knowledge, this is likely the first large-scale naturalistic study of antipsychotic treatment to adopt the remission rate as a primary outcome measure.

Study visits were scheduled at weeks 0, 8, 12, 26, and 52 (or at the point of treatment discontinuation).

2. Results

The number of randomized and enrolled subjects was 82 in the ARP group, 85 in the BNS group, and 84 in the PAL group. No significant differences were observed among the groups at the baseline in terms of age, sex ratio, duration of illness, antipsychotic dosage (converted to chlorpromazine equivalents), PSP score, EQ-5D score, total PANSS score, or Drug-induced Extrapyramidal Symptoms Scale (DIEPSS) score.

The 52-week discontinuation rate (primary evaluation item) after randomization, calculated using the

Kaplan-Meier method, was 68.3% in the ARP group, 68.2% in the BNS group, and 65.5% in the PAL group, with no significant differences among the groups (Figure 2). When examined by reason for discontinuation: lack of efficacy was reported by 34.1% of the ARP group, 32.9% of the BNS group, and 22.6% of the PAL group; poor tolerability was reported by 19.5, 12.9, and 25.0%, respectively; patient requests by 8.5, 14.1, and 10.7%, respectively; and other reasons by 6.1, 8.2, and 7.1%, respectively.

The median time to discontinuation was 144.5 days (range: 91.0–210.0) in the ARP group, 144.0 days (81.0–238.0) in the BNS group, and 129.5 days (84.0–252.0) in the PAL group. Exploratory analysis of factors associated with discontinuation events revealed that a prior antipsychotic dose $\geq 1,000$ mg CP equivalents was positively associated with discontinuation events (HR: 1.84, 95% CI: 1.02–3.29, $P = 0.0289$), whereas an illness duration of 6 years or more was negatively associated (HR: 0.67, 95% CI: 0.46–0.96, $P = 0.0289$).

The remission rate steadily increased over the 52-week period, with no significant differences among the treatment groups (Table 1).

PSP scores improved significantly across the entire cohort over the 52 weeks. By treatment, the BNS group showed significant improvement at both

weeks 26 and 52, while the ARP group showed significant improvement at week 26. In contrast, improvement in the PAL group did not reach significance (Table 2). EQ-5D scores already showed significant improvement by the time patients completed the switch to monotherapy, and continued to improve significantly across the cohort over the 52 weeks. By treatment, the BNS group showed significant improvement 26 weeks after monotherapy switching (Table 2).

Adverse events were consistent with previously known reports, and no new adverse events were reported. The total incidence of adverse events was 52.4% in the ARP group, 37.6% in the BNS group, and 58.3% in the PAL group, and the incidence of endocrine-related events was 1.2, 0.0, and 9.5%, respectively, with significant differences observed ($P = 0.0215$ and 0.0015 , respectively). Multiple comparisons revealed a significant difference in total incidence between BNS and PAL groups ($P = 0.032$), and significant differences in endocrine-related events between BNS and PAL groups ($P < 0.001$), as well as between ARP and PAL groups ($P = 0.014$). No significant difference was observed between BNS and ARP groups.

II. Discussion

1. Discussion of the study results

The observation that the “discontinuation rate for any reason”, the most fundamental primary outcome for assessing effectiveness, did not differ among the three major SGAs confirms previous international findings that it is difficult to detect differences between drugs in large-scale naturalistic studies using the discontinuation rate as an outcome.^{3,4)} The fact that similar results were obtained despite differences in the healthcare environment provides valuable insight for future evaluations of the usefulness of new medications entering the market. Compared with prior international trials (CATIE,¹¹⁾ SOHO,¹²⁾ EUFEST,¹⁰⁾ and CUtLASS,⁹⁾ discontinuation rate differences in this study may have been due to its design and the fact that 94% of patients were already receiving antipsychotic treatment at the time of enrollment. The fact that more than 60% of patients discontinued within 52 weeks across all three drugs suggests that, even with SGAs, continued treatment is not readily achievable. The main reasons for discontinuation: insufficient efficacy and poor tolerability, were consistent with prior studies. However, there were some differences among the drugs: PAL tended to be associated with a higher discontinuation rate due to poor tolerability and safety concerns, while ARP and BNS tended to be associated with higher rates due to insufficient

efficacy. These results were consistent with prior expectations. This study reaffirmed that the “discontinuation rate for any reason” is a valid, comprehensive indicator for evaluating the long-term usefulness of SGAs in a given healthcare setting.⁵⁾ Furthermore, although limited in number, cases in which the prior antipsychotic dose exceeded 1,000 mg CP equivalents were associated with a higher discontinuation rate. This suggests that the study protocol’s requirement to complete the switch to the investigational drug within 4 weeks may have been too short for a safe transition in high-dose cases. It also suggests that patients previously receiving high doses may have a higher risk of discontinuation during the switching phase. In contrast, the lower discontinuation rate among patients with an illness duration of 6 years or longer suggests that, in patients with a shorter illness duration, non-pharmacological factors may have played a greater role in treatment discontinuation.

With the advent of the SGA era, expectations have increasingly shifted toward improvements in social functioning and QOL.^{2,14,15)} Consequently, assessing the outcomes of long-term antipsychotic treatment using these measures has increasingly become more important. In the present

study, only the BNS group demonstrated consistent improvement in PSP scores over the 52-week period. EQ-5D scores had already improved by the time the switch to the assigned study drug had been completed (i.e., upon achieving monotherapy), suggesting that QOL may improve simply through optimization of medication regimens. Although improvements were observed at several subsequent visits across all treatment groups, no consistent pattern emerged. This suggests the following: given that most patients were switched from prior antipsychotic treatments, the 52-week observation period may have been insufficient to confirm stable and sustained improvements.

2. Significance of this study

On long-term treatment of schizophrenia patients with antipsychotics, clinical decisions regarding drug selection and switching often require consideration of numerous influencing factors. As has been repeatedly emphasized, rational and scientific data to support such decisions are essential. The JUMPs study was the first large-scale randomized observational trial in Japan designed to meet this need. Unlike clinical trials conducted under artificial conditions, data obtained in a real-world clinical setting are valuable for their direct

applicability to clinical decision-making, and the results are significant. The study also reaffirmed the validity of using the discontinuation rate as a primary evaluation item, which is of marked importance. Furthermore, by incorporating the remission rate, social functioning, and QOL as treatment outcome measures, the study was able to evaluate the utility of pharmacotherapy in ways that are not possible using psychopathological scales alone. While such evaluations have been attempted in smaller studies, the ability to compare multiple standard investigational drugs in a large-scale trial provided useful information that can be shared between physicians and patients when assessing treatment outcomes. Another major feature of this study was use of the remission rate as a primary evaluation item. Confirmation of the clinical fact that the probability of achieving remission increases with continued treatment highlights the importance of treatment persistence. This finding holds significant clinical value. Rubio, J.M. et al.¹³⁾ noted recent developments in the approach to pharmacological treatment of schizophrenia patients: the shift from symptom improvement to recovery, the emphasis on treatment continuity, and evidence-based recommendations for maintenance therapy (alongside individualized treatment and new

mechanisms of action). The JUMPs study aligns with these current trends. Reflecting the findings of this study in future clinical guidelines is expected to further raise the standard of care.

III. Future Perspectives

In “Introduction” of this paper, the necessity of effectiveness research was discussed, and the importance of understanding the characteristics of drugs through true endpoints such as the discontinuation rate, rather than surrogate endpoints like psychopathological symptoms, and making selection decisions accordingly, has been reaffirmed. Much of the data we can easily obtain are not expressed by simple indicators that are comprehensive and rational, so constructing datasets that allow for shared clinical judgment without over-relying on clinicians’ experience will become increasingly necessary. However, it is also true that such data are extremely rare. Now that the importance of shared decision-making (SDM)¹⁶⁾ is being increasingly recognized, the significance of using data provided by effectiveness research as a common language to deepen mutual understanding between physicians and patients will become ever more important. The JUMPs study targeted antipsychotics, but similar research should be conducted for other

psychotropic drugs as well as for therapeutic interventions beyond pharmacotherapy. It is also a fact that such studies are not being conducted frequently in practice. There may be several reasons for this, which I would like to discuss here, incorporating my personal views.

Large-scale clinical trials to collect high-quality data generally require research funding and long study periods. Therefore, researchers must expend marked effort and sustain motivation to achieve their objectives. In fact, this study took more than 10 years from development of the protocol and establishment of the research framework to the publication of this first report. It is a fact that the time required to achieve results affects researchers’ motivation. Furthermore, even in trials related to pharmacotherapy such as this, since the data are not intended for regulatory approval but are part of empirical, exploratory research aimed at generating novel findings, the research infrastructure in Japan remains underdeveloped. However, by conducting such studies through multi-center collaboration and sharing the accumulated data among researchers, it will be possible to discover new unmet needs and ask important clinical questions, which will become a driving force for new drug development. The

Japanese Society of Neuropsychopharmacology has been working through its Translational Medical Science Committee to promote new drug development, and even in the competitive environment of development among researchers, there has been increasing discussion that a shared database accessible to researchers at the pre-competitive stage should be constructed. As a result, a Data Sharing Committee was established within the society, and preparations for new clinical research are progressing with plans to transfer the JUMPs study data as the first dataset to be registered. If this movement serves as a catalyst for constructing a user-friendly, large-scale database in Japan, it could become a key driver for advancing the development of new treatments. As a JUMPs researcher, I hope that these data will be utilized as a shared asset to contribute to the improvement of public health.

It should be noted that the JUMPs study was a 104-week observational study, and its results will be published in the future.

Conclusion

This study examined the usefulness of ARP, BNS, and PAL, which are commonly used in psychiatric clinical settings in Japan. As a result, no

differences were identified in the “discontinuation rate for any reason” among the three drugs, suggesting that there are no marked differences in their overall usefulness. However, when analyzing reasons for discontinuation, certain drug-specific characteristics were observed, and results supporting clinicians’ expectations were also obtained. The significance of this study lies in demonstrating the feasibility of large-scale, naturalistic empirical research. Although such research has long been considered necessary, it has rarely been conducted in Japan until now. This approach can empirically clarify the usefulness of antipsychotics. If similar studies are conducted in the future, a wealth of information more reflective of clinical practice will be accumulated. In Japan, especially in the field of psychiatry, database-building research is still in its early stages and remains limited in scale. Even the JUMPs study remains insufficient in terms of scale and the comprehensiveness of data compared with global standards. It is hoped that researchers’ interest will increasingly turn toward empirical research, and that its significance will be appropriately recognized.

Conflict of Interest

The authors received lecture and manuscript fees from Otsuka

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Note

In Japan, "utility rate" was once widely used as one of the endpoints. To avoid

confusion with this term, the word "effectiveness" is used in this paper without translation into Japanese.

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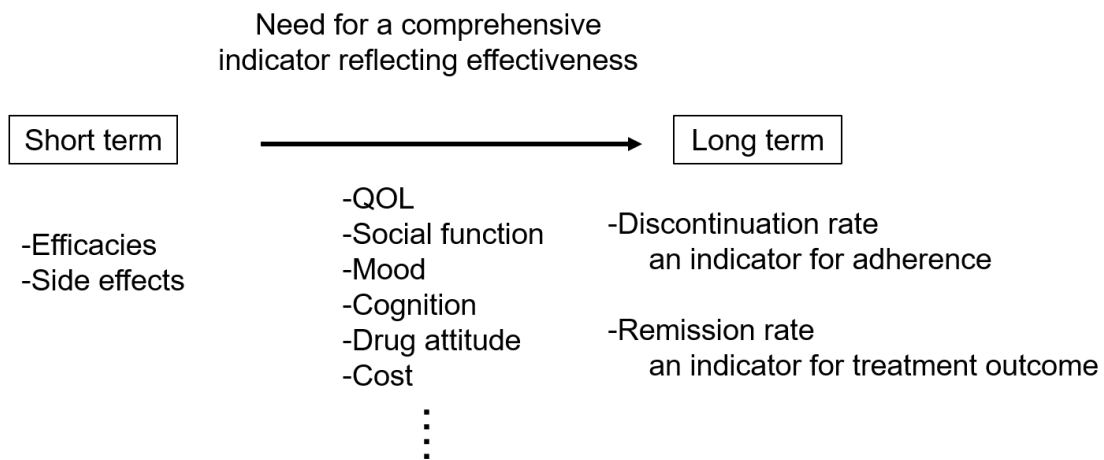
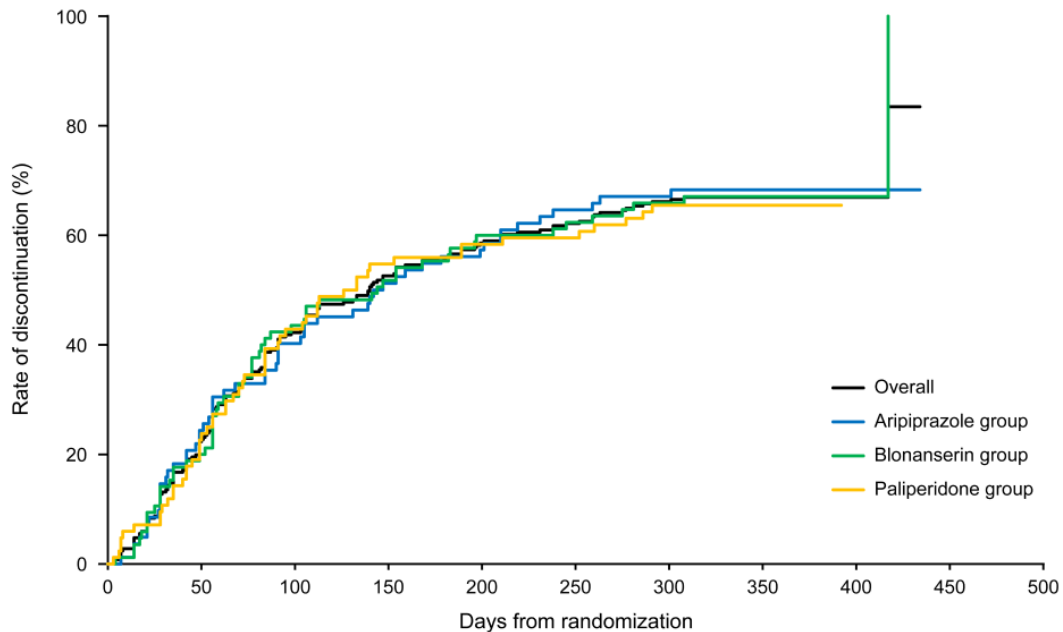


Figure 1 Concept of effectiveness



At risk									
Aripiprazole	82	62	49	40	35	29	27	19	2
Blonanserin	85	68	48	41	34	32	29	21	3
Paliperidone	84	65	48	38	35	34	29	26	0

Figure 2 Transition of discontinuation rates after randomization
(Translated and cited from reference 8)

表 1 52 週間の寛解率推移

評価時点	全対象者			アリピプラゾール群			ブロナンセリン群			パリエリドン群			χ ² test P 値
	例数	寛解率 n (%)	95% CI	例数	寛解率 n (%)	95% CI	例数	寛解率 n (%)	95% CI	例数	寛解率 n (%)	95% CI	
組み入れ時	251	74 (29.5)	23.9~35.5	82	23 (28.0)	18.7~39.1	85	23 (27.1)	18.0~37.8	84	28 (33.3)	23.4~44.5	0.6312
単剤化時	224	61 (27.2)	21.5~33.6	75	23 (30.7)	20.5~42.4	76	18 (23.7)	14.7~34.8	73	20 (27.4)	17.6~39.1	0.6281
8 週	186	37 (19.9)	14.4~26.4	62	14 (22.6)	12.9~35.0	62	10 (16.1)	8.0~27.7	62	13 (21.0)	11.7~33.2	0.6449
12 週	157	37 (23.6)	17.2~31.0	53	13 (24.5)	13.8~38.3	50	11 (22.0)	11.5~36.0	54	13 (24.1)	13.5~37.6	0.9498
26 週	112	31 (27.7)	19.6~36.9	38	11 (28.9)	15.4~45.9	37	7 (18.9)	8.0~35.2	37	13 (35.1)	20.2~52.5	0.2899
52 週	82	34 (41.5)	30.7~52.9	26	11 (42.3)	23.4~63.1	27	11 (40.7)	22.4~61.2	29	12 (41.4)	23.5~61.1	0.9933

CI : confidence interval
(文献 8 より和訳して改変引用)

Table 1 Transition of remission rates over 52 weeks

Overall Aripiprazole group Blonanserin group Paliperidone group χ² test

Evaluation time-point

Number of cases Remission rate: n (%) 95% CI

Number of cases Remission rate: n (%) 95% CI

Number of cases Remission rate: n (%) 95% CI

Number of cases Remission rate: n (%) 95% CI

P-value

At enrollment

251 74 (29.5) 23.9–35.5 82 23 (28.0) 18.7–39.1 85 23 (27.1) 18.0–37.8 84 28 (33.3)
23.4–44.5 0.6312

At monotherapy initiation

224 61 (27.2) 21.5–33.6 75 23 (30.7) 20.5–42.4 76 18 (23.7) 14.7–34.8 73 20 (27.4)
17.6–39.1 0.6281

8 weeks

186 37 (19.9) 14.4–26.4 62 14 (22.6) 12.9–35.0 62 10 (16.1) 8.0–27.7 62 13 (21.0) 11.7–
33.2 0.6449

12 weeks

157 37 (23.6) 17.2–31.0 53 13 (24.5) 13.8–38.3 50 11 (22.0) 11.5–36.0 54 13 (24.1)
13.5–37.6 0.9498

26 weeks

112 31 (27.7) 19.6–36.9 38 11 (28.9) 15.4–45.9 37 7 (18.9) 8.0–35.2 37 13 (35.1) 20.2–
52.5 0.2899

52 weeks

82 34 (41.5) 30.7–52.9 26 11 (42.3) 23.4–63.1 27 11 (40.7) 22.4–61.2 29 12 (41.4) 23.5–
61.1 0.9933

CI: confidence interval (Translated and modified citation from reference 8)

表 2 社会機能

治療群	基礎値	単剤化時		26週時		52週時		
		総得点/効用値	総得点/効用値	変化量	総得点/効用値	変化量	総得点/効用値	変化量
PSP 総得点*	全例 N	251	216	216	105	105	77	77
	平均 (SD)	56.3 (20.8)	58.8 (21.0)	2.4 (14.2) [†]	61.5 (21.5)	5.4 (16.8) [†]	61.4 (21.8)	7.8 (17.7) [†]
	中央値 (最小, 最大)	60.0 (6, 100)	63.0 (4, 100)	0.0 (-58, 82)	65.0 (4, 95)	0.0 (-71, 73)	65.0 (6, 95)	0.0 (-25, 74)
	アリビブ N	82	72	72	34	34	23	23
	ラゾール群 平均 (SD)	59.0 (21.0)	60.7 (22.7)	0.4 (14.5)	67.5 (21.7)	6.4 (15.7) [†]	61.9 (25.8)	5.9 (14.4)
	中央値 (最小, 最大)	65.0 (6, 100)	65.0 (6, 100)	0.0 (-58, 55)	68.0 (11, 95)	0.0 (-21, 56)	70.0 (6, 95)	0.0 (-19, 42)
	プロナン N	85	74	74	37	37	27	27
	セリン群 平均 (SD)	53.6 (21.1)	56.7 (20.4)	3.7 (14.4) [†]	60.0 (18.8)	7.8 (16.9) [†]	59.9 (23.2)	9.5 (18.7) [†]
	中央値 (最小, 最大)	60.0 (7, 85)	62.0 (4, 91)	0.0 (-55, 62)	65.0 (10, 90)	1.0 (-25, 73)	65.0 (6, 95)	1.0 (-25, 66)
	バリベ N	84	70	70	34	34	27	27
	リドン群 平均 (SD)	56.5 (20.4)	58.9 (19.8)	3.2 (13.5)	57.3 (23.3)	1.9 (17.5)	62.4 (16.7)	7.7 (19.5)
	中央値 (最小, 最大)	60.0 (6, 95)	60.0 (7, 95)	0.0 (-10, 82)	60.0 (4, 95)	0.0 (-71, 52)	65.0 (20, 95)	0.0 (-7, 74)
EQ-5D 効用値	全例 N	250	218	218	106	106	79	79
	平均 (SD)	0.79 (0.17)	0.82 (0.17)	0.03 (0.12) [†]	0.83 (0.17)	0.04 (0.17) [†]	0.84 (0.16)	0.05 (0.15) [†]
	中央値 (最小, 最大)	0.77 (0.18, 1.00)	0.79 (-0.06, 1.00)	0.00 (-0.43, 0.61)	0.79 (0.12, 1.00)	0.00 (-0.35, 0.52)	0.80 (0.41, 1.00)	0.00 (-0.31, 0.53)
	アリビブ N	82	74	74	34	34	25	25
	ラゾール群 平均 (SD)	0.78 (0.17)	0.82 (0.16)	0.04 (0.13) [†]	0.83 (0.17)	0.04 (0.20)	0.83 (0.16)	0.07 (0.18)
	中央値 (最小, 最大)	0.77 (0.39, 1.00)	0.79 (0.42, 1.00)	0.00 (-0.21, 0.61)	0.79 (0.47, 1.00)	0.00 (-0.34, 0.47)	0.77 (0.59, 1.00)	0.00 (-0.31, 0.53)
	プロナン N	85	73	73	36	36	27	27
	セリン群 平均 (SD)	0.77 (0.18)	0.79 (0.20)	0.03 (0.13)	0.81 (0.19)	0.05 (0.13) [†]	0.81 (0.17)	0.05 (0.13)
	中央値 (最小, 最大)	0.77 (0.18, 1.00)	0.77 (-0.06, 1.00)	0.00 (-0.43, 0.34)	0.79 (0.12, 1.00)	0.00 (-0.23, 0.34)	0.79 (0.41, 1.00)	0.00 (-0.25, 0.34)
	バリベ N	83	71	71	36	36	27	27
	ドン群 平均 (SD)	0.82 (0.15)	0.84 (0.15)	0.03 (0.11) [†]	0.86 (0.15)	0.03 (0.17)	0.88 (0.16)	0.03 (0.13)
	中央値 (最小, 最大)	0.79 (0.48, 1.00)	0.79 (0.48, 1.00)	0.00 (-0.26, 0.37)	0.90 (0.59, 1.00)	0.00 (-0.35, 0.52)	1.00 (0.48, 1.00)	0.00 (-0.30, 0.29)

52週間で群間に有意差はみられなかった (分散分析)。*: 組み入れ時との比較 (ITT コホート)
EQ-5D: EuroQol-5 dimensions, ITT: intent to treat, PSP: Personal and Social Performance Scale, SD: standard deviation
[†]P<0.05 for change from baseline assessment (paired t test)
(文献 8 より和訳して改変引用)

Table 2 Social functioning

Baseline At monotherapy initiation At 26 weeks At 52 weeks

Treatment group

Total score / Utility value

Total score / Utility value Change

Total score / Utility value Change

Total score / Utility value Change

Total PSP score*

All cases

Aripiprazole group

N

251 216 216 105 105 77 77

Mean (SD)

56.3 (20.8) 58.8 (21.0) 2.4 (14.2)† 61.5 (21.5) 5.4 (16.8)† 61.4 (21.8) 7.8 (17.7)†

Median (min, max)

60.0 (6, 100) 63.0 (4, 100) 0.0 (-58, 82) 65.0 (4, 95) 0.0 (-71, 73) 65.0 (6, 95) 0.0 (-25, 74)

N

82 72 72 34 34 23 23

Mean (SD)

59.0 (21.0) 60.7 (22.7) 0.4 (14.5) 67.5 (21.7) 6.4 (15.7)† 61.9 (25.8) 5.9 (14.4)

Median (min, max)

65.0 (6, 100) 65.0 (6, 100) 0.0 (-58, 55) 68.0 (11, 95) 0.0 (-21, 56) 70.0 (6, 95) 0.0 (-19, 42)

Blonanserin group

N

85 74 74 37 37 27 27

Mean (SD)

53.6 (21.1) 56.7 (20.4) 3.7 (14.4)† 60.0 (18.8) 7.8 (16.9)† 59.9 (23.2) 9.5 (18.7)†

Median (min, max)

60.0 (7, 85) 62.0 (4, 91) 0.0 (-55, 62) 65.0 (10, 90) 1.0 (-25, 73) 65.0 (6, 95) 1.0 (-25, 66)

Paliperidone group

N

84 70 70 34 34 27 27

Mean (SD)

56.5 (20.4) 58.9 (19.8) 3.2 (13.5) 57.3 (23.3) 1.9 (17.5) 62.4 (16.7) 7.7 (19.5)

Median (min, max)

60.0 (6, 95) 60.0 (7, 95) 0.0 (-10, 82) 60.0 (4, 95) 0.0 (-71, 52) 65.0 (20, 95) 0.0 (-7, 74)

EQ—5D utility values

All cases

N

250 218 218 106 106 79 79

Mean (SD)

0.79 (0.17) 0.82 (0.17) 0.03 (0.12)† 0.83 (0.17) 0.04 (0.17)† 0.84 (0.16) 0.05 (0.15)†

Median (min, max)

0.77 (0.18, 1.00) 0.79 (-0.06, 1.00) 0.00 (-0.43, 0.61) 0.79 (0.12, 1.00) 0.00 (-0.35, 0.52) 0.80 (0.41, 1.00) 0.00 (-0.31, 0.53)

Aripiprazole group

N

82 74 74 34 34 25 25

Mean (SD)

0.78 (0.17) 0.82 (0.16) 0.04 (0.13)† 0.83 (0.17) 0.04 (0.20) 0.83 (0.16) 0.07 (0.18)

Median (min, max)

0.77 (0.39, 1.00) 0.79 (0.42, 1.00) 0.00 (-0.21, 0.61) 0.79 (0.47, 1.00) 0.00 (-0.34, 0.47) 0.77 (0.59, 1.00) 0.00 (-0.31, 0.53)

Blonanserin group

N

85 73 73 36 36 27 27

Mean (SD)

0.77 (0.18) 0.79 (0.20) 0.03 (0.13) 0.81 (0.19) 0.05 (0.13)† 0.81 (0.17) 0.05 (0.13)

Median (min, max)

0.77 (0.18, 1.00) 0.77 (-0.06, 1.00) 0.00 (-0.43, 0.34) 0.79 (0.12, 1.00) 0.00 (-0.23, 0.34) 0.79 (0.41, 1.00) 0.00 (-0.25, 0.34)

Paliperidone group

N

83 71 71 36 36 27 27

Mean (SD)

0.82 (0.15) 0.84 (0.15) 0.03 (0.11)† 0.86 (0.15) 0.03 (0.17) 0.88 (0.16) 0.03 (0.13)

Median (min, max)

0.79 (0.48, 1.00) 0.79 (0.48, 1.00) 0.00 (−0.26, 0.37) 0.90 (0.59, 1.00) 0.00 (−0.35, 0.52)
1.00 (0.48, 1.00) 0.00 (−0.30, 0.29)

No significant differences between groups were observed at 52 weeks (analysis of variance).

*: Comparison with baseline (ITT cohort)

EQ—5D: EuroQol—5 dimensions, ITT: intent to treat, PSP: Personal and Social Performance Scale, SD: standard deviation

† $P < 0.05$ for change from baseline assessment (paired t-test)

(Translated and modified from reference 8)