

The effect of switching from oral low-dose aripiprazole to aripiprazole once-monthly 300 mg on the quality of life in three patients with schizophrenia

SAGE Open Medical Case Reports
Volume 5: 1–3
© The Author(s) 2017
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/2050313X17710594
journals.sagepub.com/home/sco



Hidenobu Suzuki¹, Hiroyuki Hibino², Yuichi Inoue³,
Hideo Matsumoto⁴ and Katsunaka Mikami⁴

Abstract

Background: Schizophrenia is a chronic disease that requires long-term management with antipsychotics; however, an important barrier to the success of long-term treatment is drug noncompliance, which increases the risk of recurrence and hospitalization. Second-generation long-acting injectable antipsychotics have improved drug adherence, and the pharmacological effects of the drugs, and therefore, have become useful treatment options.

Methods: We report on three schizophrenia patients who switched from oral low-dose aripiprazole to aripiprazole once-monthly 300 mg. We examined the efficacy and safety of aripiprazole once-monthly 300 mg, as well as its influence on quality of life, from baseline to 20 weeks after aripiprazole once-monthly 300 mg treatment.

Results: Aripiprazole once-monthly 300 mg did not exacerbate the depressive and negative symptoms, and extrapyramidal symptoms were improved, which may have helped improve the quality of life.

Conclusion: The results suggest the efficacy of aripiprazole once-monthly 300 mg in maintenance treatment for schizophrenia when mental symptoms are stable.

Keywords

Aripiprazole once-monthly 300 mg, quality of life, extrapyramidal symptoms, maintenance phase, schizophrenia

Date received: 9 October 2016; accepted: 13 April 2017

Introduction

Schizophrenia is a chronic disease that requires long-term management with antipsychotics; however, an important barrier to the success of long-term treatment is drug non-compliance, which increases the risk of recurrence and hospitalization.¹ Second-generation long-acting injectable antipsychotics have improved drug adherence, and the pharmacological effects of the drugs, and therefore, have become useful treatment options.² We report on three schizophrenia patients who switched from oral low-dose aripiprazole to aripiprazole once-monthly 300 mg (AOM 300). As preliminary results, we already reported the effects of AOM on cognitive function of the other two schizophrenia patients.³ In addition, we examined the efficacy and safety of AOM 300, as well as its influence on quality of life (QOL), from baseline to 24 weeks after AOM treatment.

Case report

Three patients fulfilled the following criteria for at least 3 months prior to switching, and their mental symptoms were stable: (1) Positive and Negative Syndrome Scale (PANSS)⁴ total score <70. (2) A score below 3 for all the parameters in PANSS, namely, conceptual disorganization, hallucinatory behavior, suspiciousness, and unusual thought content. (3)

¹Department of Psychiatry, Suzuki Clinic, Tokyo, Japan

²Department of Psychiatry, Fukui Kinen Hospital, Kanagawa, Japan

³Department of Psychiatry, Shakomae Kokorono Clinic, Tokyo, Japan

⁴Department of Psychiatry, School of Medicine, Tokai University, Kanagawa, Japan

Corresponding Author:

Hidenobu Suzuki, Department of Psychiatry, Suzuki Clinic, 3-34-16 Hamadayama, Sugunami, Tokyo 168-0065, Japan.

Email: suzuihiromarket@yahoo.co.jp



Table 1. Subject characteristics.

	Patient 1	Patient 2	Patient 3
Age (years)	37	45	26
Education (years)	14	14	16
Duration of illness (years)	20	4	6
Age at onset (years)	17	41	20
Hospitalization history	0	1	0
Aripiprazole (mg/day) (baseline)	9	6	6
PANSS total score (baseline)	59	60	52
Conceptual disorganization	2	2	1
Hallucinatory behavior	3	3	2
Suspiciousness	3	3	2
Unusual thought content	2	3	2
CGI-S (baseline)	3	3	3

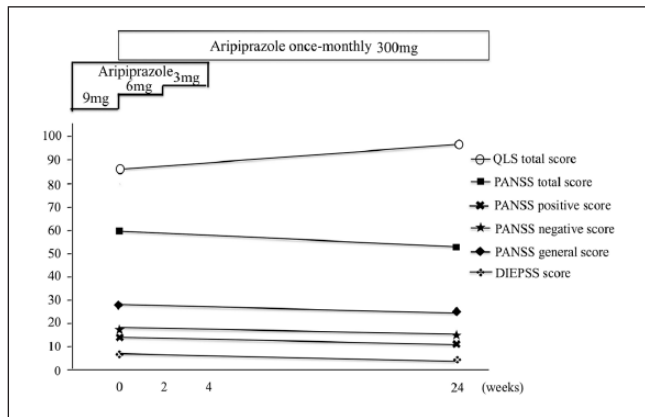
CGI-S: Clinical Global Impression–Severity scale; PANSS: Positive and Negative Syndrome Scale.

Clinical Global Impression–Severity (CGI-S)⁵ score below 3 (Table 1). Written informed consent was obtained from the patients. Their anonymity has been preserved. QOL was assessed using the Heinrichs–Carpenter Quality-of-Life Scale (QLS).⁶

The first outpatient was a 37-year-old woman with paranoid schizophrenia who experienced akathisia and dystonia under aripiprazole treatment (9 mg; Figure 1). AOM 300 was administered and oral aripiprazole was reduced to 6 mg. Oral aripiprazole was reduced to 3 mg after 2 weeks and stopped after 4 weeks. AOM 300 received gluteal injections at 4-week intervals, alternating the left and right sides. 24 weeks after switching from oral low-dose aripiprazole to AOM, the following characteristics improved: PANSS total score (59 to 53), positive score (14 to 13), negative score (18 to 15), general score (27 to 25), QLS total score (86 to 94), and drug-induced extrapyramidal symptoms scale (DIEPSS)⁷ (5 to 2) (Figure 1, Table 2). On the other hand, there was no change in the CGI-S (3 to 3).

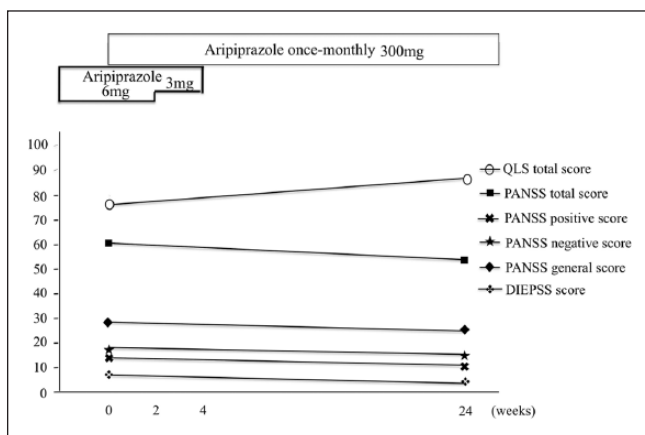
The second outpatient was a 45-year-old woman with paranoid schizophrenia who experienced bradykinesia and akathisia under aripiprazole treatment (6 mg; Figure 2). AOM 300 was administered to oral aripiprazole 6 mg. Oral aripiprazole was reduced to 3 mg after 2 weeks and stopped after 4 weeks. AOM 300 received brachial injections at 4-week intervals, alternating the left and right sides. 24 weeks after switching from oral low-dose aripiprazole to AOM, the following characteristics improved: PANSS total score (60 to 54), positive score (14 to 12), negative score (18 to 15), general score (28 to 27), QLS total score (78 to 86), and DIEPSS (6 to 3) (Figure 1, Table 2). On the other hand, there was no change in the CGI-S (3 to 3).

The third outpatient was a 26-year-old man with paranoid schizophrenia who experienced akathisia under aripiprazole treatment (6 mg; Figure 3). AOM 300 was

**Figure 1.** Patient 1 progress chart.**Table 2.** Change in level of functioning per QLS total and QLS subscale scores from baseline to endpoint.

QLS score/visit	Patient 1	Patient 2	Patient 3
Total score			
Baseline	86	78	97
Endpoint	94	86	106
Common objects and activities			
Baseline	8	8	8
Endpoint	10	10	10
Intrapsychic foundation			
Baseline	30	27	32
Endpoint	36	30	39
Intrapersonal relation			
Baseline	32	31	36
Endpoint	32	34	36
Instrumental role			
Baseline	16	12	21
Endpoint	16	12	21

QLS: Quality-of-Life Scale.

**Figure 2.** Patient 2 progress chart.

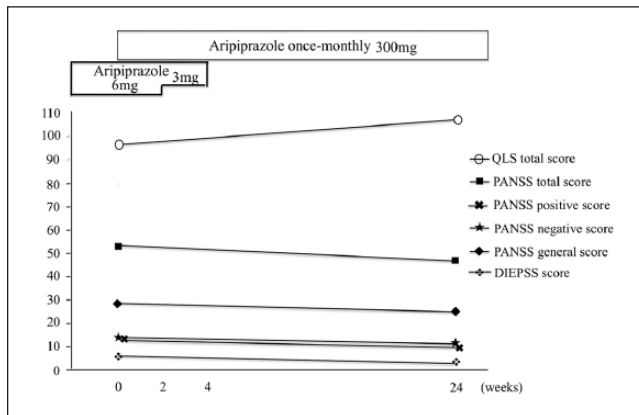


Figure 3. Patient 3 progress chart.

administered to oral aripiprazole 6 mg. Oral aripiprazole was reduced to 3 mg after 2 weeks and stopped after 4 weeks. AOM 300 received brachial injections at 4-week intervals, alternating the left and right sides. 24 weeks after switching from oral low-dose aripiprazole to AOM, the following characteristics improved: PANSS total score (52 to 47), positive score (11 to 10), negative score (13 to 11), general score (28 to 26), QLS total score (97 to 106), and DIEPSS (4 to 2) (Figure 1, Table 2). On the other hand, there was no change in CGI-S (3 to 3).

Discussion

This is the report of three patients who received aripiprazole in long-acting injectable formulations. In this study, three schizophrenia patients switched from oral low-dose aripiprazole to AOM 300 in order to improve extrapyramidal symptoms (EPS) and negative symptoms to some extent during maintenance therapy. The psychiatric symptoms were stable during therapy, leading to improved QOL and living skills. Consistent with this case report, previous studies have reported AOM 300 was no worsening of mental symptoms or EPS (bradykinesia, akathisia, and dystonia) in the 24 weeks of treatment.⁸ Consistent with previous studies,⁹ for all three patients, of the four areas of QLS, improvement was seen mainly in intrapsychic foundations. Previous studies reported that depressive and negative symptoms have a significant impact on the QOL of schizophrenia patients.¹⁰ Furthermore, changing to AOM 300 did not exacerbate the depressive and negative symptoms, EPS, common objects and activities and intrapsychic foundation were improved, which may have helped improve the QOL. Therefore, the results suggest the efficacy of AOM 300 in maintenance treatment for schizophrenia when mental symptoms are stable.

Declaration of conflicting interests

The author(s) declared the following potential conflicts of interest with respect to the research, authorship, and/or publication of this article: H.S. has received honoraria from Janssen, Otsuka, Dainippon Sumitomo, Shionogi, and Yoshitomiya. H.H. has received

honoraria from Janssen, Lilly, Otsuka, and GlaxoSmithKline. Y.I. received honoraria from Eisai, Novartis, and Meiji. H.M. has received grant support from Dainippon Sumitomo, Mitsubishi Tanabe, Otsuka, Lilly, Shionogi, and honoraria from Lilly, Novartis, Yoshitomiya, GlaxoSmithKline, Dainippon Sumitomo, Pfizer, Meiji Seika, Otsuka, Janssen, Shionogi, Eisai, Astellas, and Mitsubishi Tanabe for lectures. K.M. received research supports from Mitsubishi Tanabe, Otsuka, and Shionogi, and honoraria from Otsuka, Mitsubishi Tanabe, and Lilly.

Ethical approval

Our institution does not require ethical approval for reporting individual cases or case series.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Informed consent

Written informed consent was obtained from the patient(s) for their anonymized information to be published in this article.

References

- Valenstein M, Ganoczy D, McCarthy JF, et al. Antipsychotic adherence over time among patients receiving treatment for schizophrenia: a retrospective review. *J Clin Psychiatry* 2006; 67: 1542–1550.
- Kane JM. Review of treatments that can ameliorate nonadherence in patients with schizophrenia. *J Clin Psychiatry* 2006; 67: 9–14.
- Suzuki H and Sekiguchi G. Influence of aripiprazole once monthly on clinical symptoms and cognitive function in two schizophrenia patients: preliminary results. *Psychiatry Clin Neurosci* 2016; 70: 71–72.
- Kay SR, Fiszbein A and Opler LA. The positive and negative syndrome scale (PANSS) for schizophrenia. *Schizophr Bull* 1987; 13: 261–276.
- Guy W. *ECDEU assessment manual for psychopharmacology*. Rockville, MD: US Department of Health, Education, and Welfare Public Health Service Alcohol, Drug Abuse, and Mental Health Administration, 1976.
- Heinrichs DW, Hanlon TE and Carpenter WT. The Quality of Life Scale: an instrument for rating the schizophrenic deficit syndrome. *Schizophr Bull* 1984; 10(10): 388–398.
- Inada T. Evaluation and diagnosis of drug-induced extrapyramidal symptoms. In: Yagi G (ed.) *Commentary on the DIEPSS and guide to its usage*. Tokyo, Japan: Seiwa Publishers, 1996, pp. 11–60 (in Japanese).
- Mallikaarjun S, Kane JM, Bricmont P, et al. Pharmacokinetics, tolerability and safety of aripiprazole once-monthly in adult schizophrenia: an open-label, parallel-arm, multiple-dose study. *Schizophr Res* 2013; 150: 281–288.
- Naber D, Hansen K, Forray C, et al. Qualify: a randomized head-to-head study of aripiprazole once-monthly and paliperidone palmitate in the treatment of schizophrenia. *Schizophr Res* 2015; 168: 498–504.
- Akinsulore A, Aloba OO, Mapayi BM, et al. Relationship between depressive symptoms and quality of life in Nigerian patients with schizophrenia. *Soc Psychiatry Psychiatr Epidemiol* 2014; 49: 1191–1198.