

ATTITUDES OF CROATIAN PSYCHIATRISTS TOWARDS LONG-ACTING INJECTABLE ANTIPSYCHOTICS

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SUMMARY

Background: Despite many advantages of long-acting injectable antipsychotics (LAIA), this type of therapy is still underused in routine practice. Since psychiatrists' attitudes play an important role in prescription rate of LAIA, we found it valuable to examine their attitudes because, according to our knowledge, there hasn't been similar research in Croatia so far.

Subjects and methods: In this research, we included the total of 48 psychiatrists. For research purposes, we created a questionnaire modeled on standardized questionnaire. Results are described with descriptive statistics and Likert scale was used to measure respondents' attitudes to statements.

Results: The number of years of their experience in practice is expressed with median of 13.50 years with minimal value of 1.00 and maximum value of 36.00 years. Most of psychiatrists find that LAIA play an important role in treatment of schizophrenia (n=44, 93.62%) and that they tend to prescribe that type of therapy (n=39, 81.25%). Almost all of psychiatrists (n=45, 93.75%) agree or strongly agree that it is easier to control patients' disease if they are treated with LAIA rather than with oral therapy and 32 of them (68.08%) think that doctor-patient relationship is more successful when patients are treated with LAIA than with oral antipsychotics. According to their experience (n=32, 68.08%) patients prefer to be treated with oral antipsychotics instead of LAIA. We expressed approximate percentage of their patients treated with LAIA with median of 20%, with minimum value of 0.00% and maximum value of 70.00%.

Conclusion: According to the results of our research, attitudes of psychiatrists towards LAIA are mostly positive, but considering the fact that there is a small number of their patients who are treated with them, we emphasize that psychiatrists still prescribe oral antipsychotics much more often than LAIA. Despite positive attitudes of patients towards LAIA, majority of psychiatrists think that patients would rather choose oral therapy.

Key words: psychiatrists – attitudes - long-acting injectable antipsychotics – LAIA - Croatia

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INTRODUCTION

Schizophrenia is a severe mental illness characterized by relapses and remissions. One of the best known predictor for decreasing the chance of relapse is patients' adherence to their treatment and that is still the major challenge in schizophrenia management (Ahmadkhanliha et al. 2014). Approximately 30-60% of patients with schizophrenia discontinue with their medication as it was prescribed (Wehring et al. 2011). There are many possible factors that can influence on patients' nonadherence and some of the most commonly reported are forgetfulness, lack of insight, problems with therapeutic alliance, lack of social support, drug abuse and medication side effects (Potkin et al. 2013). It is important to pay attention to all these factors since it has been found that the risk of relapse is 3.7 times greater for non-adherent patients than for patients who are compliant with their prescribed medication regimen (Fenton et al. 1997). Successive relapses have negative influence on the duration of remission and long-term outcomes. Furthermore, relapses are also associated with more frequent rehospitalizations which leads to high medical and non-medical costs (Lafeuille et al. 2013). Precisely because of that, prevention of relapses is one of the main challenges of modern psychiatry.

Long-acting injectable antipsychotics (LAIA) are intramuscular form of antipsychotics that were introduced in the attempt of improving patients' adherence to their treatment. While conducting this research, six LAIA were available in Croatia: haloperidol decanoate, flufenazine decanoate, zuclopenthixol decanoate, risperidone microspheres, paliperidone palmitate and olanzapine pamoate hydrate. There are many benefits of LAIA over oral antipsychotics. Considering improved compliance in lot of patients, recent studies had shown a one-year relapse rate of 27% for LAIA compared to 42% for oral antipsychotics (Wehring et al. 2011). Since it is necessary for patient to come in hospital to receive LAIA, the contact between patient and psychiatrist is more likely to be regular than with oral antipsychotics which enables psychiatrist to detect patient's non-adherence. It gives therapists the ability to be more certain whether the poor outcome comes from the wrong choice of medication or from discontinuation of taking therapy as prescribed (Potkin et al. 2013).

Despite all the advantages written above and availability of a quite number of LAIA, they are still underused in routine practice (Jakovljevic 2014). According to reports, prescription rate of LAIA is less than 25% in many countries (Llorca et al. 2013) and they are mostly reserved for most severely affected patients, nonadhe-

rent patients with multiple relapses and for patients who specifically ask for this type of therapy (Lasser et al. 2009). But, recent researches showed that not even all nonadherent patients are changed to LAIA. For example, Heres et al. reported that although almost 50% of patients involved in their research had significant adherence issue in a past one year, only 18% of them were prescribed LAIA (Valenstein et al. 2001). Possible reasons for lower prescription rate than expected might be stigma, high treatment costs, mistaken beliefs about good adherence, perceived coercion, presumed risk of lower tolerance and difficulty in presenting the benefits of LAIA to patients (Llorca et al. 2013, Rossi et al. 2012). Since psychiatrists' attitudes play an important role in prescription rate of LAIA, we found it valuable to examine their attitudes because, according to our knowledge, there hasn't been similar research in Croatia so far.

SUBJECTS AND METHODS

Subjects

For the purpose of this research, we handed out 150 questionnaires to psychiatrists working in three Croatian hospitals. Response rate was 32% and the total of 48 psychiatrists were included in this research. We expressed the number of years of their experience in practice with median of 13.50 years with minimal value of 1.00 and maximum value of 36.00 years.

Methods

The research took place in three Croatian hospitals: Department of Psychiatry (University Hospital Center Zagreb), Clinic for psychiatry „Vrapce“ and Psychiatric Hospital „Sveti Ivan“. For research purposes, we created a questionnaire modeled on pre-existing questionnaire (Patel et al. 2010, James et al. 2012). We widened questions that had been taken from this standardized questionnaire with newly designed questions in order to more detailed examine psychiatrists' attitudes towards long-acting injectable antipsychotics.

The questionnaire consists of 18 questions and they are divided into few parts. In the first part, psychiatrists were asked to write the number of years of their experience in practice, to express if they have a tendency of prescribing LAIA and to estimate the frequency of prescribing this type of therapy. In second

part of the questionnaire are statements which psychiatrists evaluated with marks from 1 to 5 to describe their opinion about a given statement (1 - strongly disagree, 2 - disagree, 3 - neutral, 4 - agree, 5 - strongly agree). The questionnaires were left in psychiatrists' offices and all of them signed informed consents. The study was approved by Central Ethics Committee, School of Medicine (University of Zagreb). All patients signed informed consents.

Statistical analysis

We analyzed all the data in Microsoft Excel (Microsoft, USA). For statistical analysis we used Cran R (R & R" of the Statistics Department of the University of Auckland, New Zealand) and our results are described with descriptive statistics. Likert scale was used to measure respondents' attitudes to statements (Figure 1). The internal consistency coefficient (Cronbachs Alpha) of this questionnaire was 0.61.

RESULTS

Most of psychiatrists find that LAIA play an important role in treatment of schizophrenia (n=44, 91.66%) and that they tend to prescribe that type of therapy (n=39, 81.25%). Thirty-nine of them (81.25%) agree or strongly agree that good aspects of LAIA outweigh the bad. According to psychiatrists' experience, patients' reactions on the idea of using LAIA are divers (n=27, 56.25% of patients have positive reactions) (Table 1).

Psychiatrists included in our research think that patients, currently using LAIA, prefer that type of therapy because they don't have to think about taking their medications every day (n=33, 68.75%). Almost all of psychiatrists (n=45, 93.75%) agree or strongly agree that it is easier to control patients' disease if they are treated with LAIA rather than with oral therapy and 34 of them (70.83%) think that doctor-patient relationship is more successful when patients are treated with LAIA than with oral antipsychotics. There is a relatively small number of psychiatrists (n=8, 16.67%) that prefer oral antipsychotics over LAIA just because of their lower price and 28 of them (58.33%) find that long-term treatment of schizophrenia with LAIA is less expensive than treatment with oral antipsychotics. Eighteen of psychiatrists (37.50%) prefer LAIA because they are more simple to use (Table 2).

Table 1. General attitudes of Croatian psychiatrists towards LAIA

General attitudes	Strongly agree/ agree (%)	Neutral (%)	Disagree/ strongly disagree (%)
LAIA are a major contribution in treatment of schizophrenia	91.66	6.25	2.08
I tend to prescribing LAIA	81.25	-	18.75
For LAIA, the good aspects outweigh the bad	81.25	16.67	2.08
Patients' reactions on the idea of using LAIA are mostly positive	56.25	33.33	10.42

* LAIA = long-acting injectable antipsychotics; OA = oral antipsychotics

Table 2. Potential advantages of LAIA

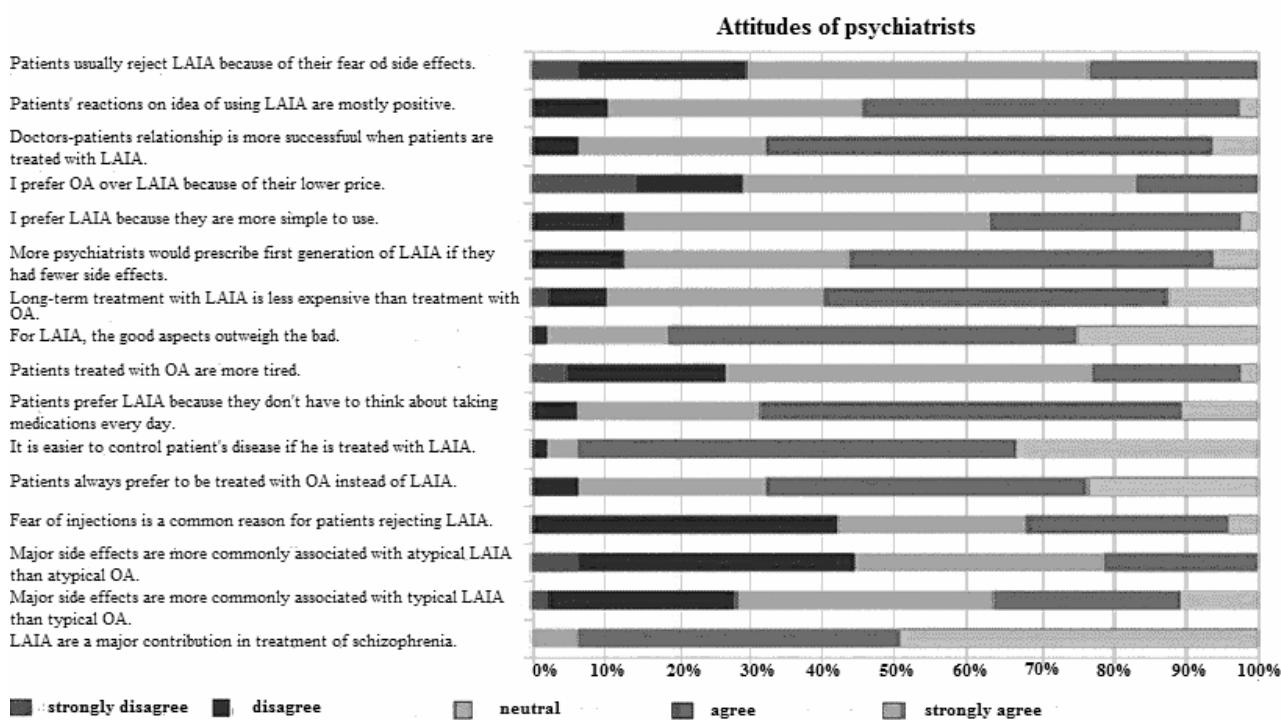
Potential advantages	Strongly agree/ agree (%)	Neutral (%)	Disagree/ strongly disagree (%)
Patients prefer LAIA because they don't have to think about taking medications every day	68.75	25.00	6.25
It is easier to control patient's disease if he is treated with LAIA	93.75	4.17	2.08
Doctors-patients relationship is more successful when patients are treated with LAIA	70.83	25.00	4.17
Long-term treatment with LAIA is less expensive than treatment with OA	58.33	31.25	10.42
I prefer LAIA because they are more simple to use	37.50	50.00	12.50

* LAIA = long – acting injectable antipsychotics; OA = oral antipsychotics

Table 3. Patients' attitudes based on Croatian psychiatrists' experiences

Patients' attitudes	Strongly agree/ agree (%)	Neutral (%)	Disagree/ strongly disagree (%)
Patients always prefer to be treated with OA instead of LAIA	66.67	27.08	6.25
Fear of injection is a common reason for patients rejecting LAIA.	31.25	27.08	41.67
Patients usually reject LAIA because of their fear of side effects.	22.92	47.92	29.17

* LAIA = long-acting injectable antipsychotics; OA = oral antipsychotics



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Figure 1. Likert scale - Attitudes of psychiatrists

According to their experience (n=32, 66.67%) patients prefer to be treated with oral antipsychotics instead of LAIA. Fifteen of them (31.25%) think that the fear of needle is a common reason for patients' rejecting LAIA and 11 of them (22.92%) find the fear of side effects as a main reason for rejecting this type of therapy (Table 3).

More than half of psychiatrists involved in our research (n=27, 56.25%) think that most psychiatrists would prescribe first generation of LAIA more often if

they had less side effects. Seventeen psychiatrists (36.96%) agree or strongly agree that major side effects are more commonly associated with atypical LAIA than with atypical oral antipsychotics and 10 of them (21.28%) have the same opinion when comparing typical LAIA with typical oral antipsychotics. Half of our psychiatrists (n=24, 50.00%) find that there is no difference between incidence of tiredness as a side effect in patients treated with LAIA and patients treated with oral therapy.

We expressed approximate percentage of their patients treated with LAIA with median of 20%, with minimum value of 0% and maximum value of 70%.

DISCUSSION

The results of this research showed that psychiatrists have mostly positive attitudes towards LAIA. Most of psychiatrists find that LAIA play an important role in treatment of schizophrenia and think that they have more advantages than disadvantages. One of the main advantages of LAIA is the possibility of early recognition of patients' nonadherence which is more difficult with oral medication. Namely, in order to receive therapy, patients are required to see their psychiatrists. In case that patients skip their pre-arranged appointment, psychiatrist has a possibility to contact them and potentially have a positive influence on their adherence. Psychiatrists, herein, see an advantage because it helps them to control patients' disease more easily when treated with LAIA than with oral antipsychotics. Furthermore, psychiatrists involved in our research agree that doctor-patient relationship is more successful when patients are treated with LAIA which is probably another benefit from regular contact.

Also, most of psychiatrists say that they have a tendency of prescribing LAIA, but despite those results, number of their patients treated with LAIA is smaller than expected (with average of 20%). Other authors also point to this kind of situation with conclusion that LAIA are underused (Bernardo et al. 2011). Although the majority of psychiatrists express favorable attitudes towards LAIA, such attitudes can not be confirmed with practice, since approximately 9 out of 10 psychiatrists endorse oral medication over LAIA (Jaeger & Rossler 2010, Patel et al. 2010). Our results show similar pattern among Croatian psychiatrists. The exact reason for such statistics still remains unknown, but researches show that there is a certain number of psychiatrists who find LAIA old-fashioned and stigmatising, who are afraid that suggestion of this type of therapy could undermine doctor-patient relationship and think that most patients find LAIA are unacceptable form of treatment. Moreover, some of them point out high treatment costs (Kirschner et al. 2013). However, more than a half of psychiatrists involved in our research claim that long-term treatment with LAIA is less expensive than with oral antipsychotics. These changes in attitudes might be due to the conclusion, noticed through time, which indicates that patients treated with LAIA have lower risk of relapses and rehospitalizations, important predictors of higher hospital costs (Lafeuille et al. 2013). Another possible reason for low prescription rate of LAIA could be related to side effects. Our results show that more than a half of psychiatrists find that typical LAIA would be more often prescribed if they had fewer side effects and approximately one third of them think that major side effects are more commonly associated with LAIA than with oral antipsychotics.

Also, some of the possible reasons for low prescription rate of LAIA might be patients' rejection of this type of treatment because of fear of the needle and side effects (Jeong & Lee 2013), but according to our psychiatrists' experiences, these causes are not significant. Additionally, it might be that a good number of patients have been treated by their psychiatrists for a long time, before LAIA became more popular.

Furthermore, we find important to emphasize the difference between patients' and psychiatrists' attitudes towards LAIA. Studies reviewed demonstrated patients' high acceptance to the LAIA. Namely, in one review, endorsement of LAIA in patients treated with this type of therapy was expressed with median of 61% (Wehring et al. 2011). On the other hand, most of the psychiatrists involved in our research find that patients prefer to be treated with oral antipsychotics rather than with LAIA, which could be result of miscommunication. Considering all the written above, future researches should aim to clarify this topic to a greater extent.

This research has certain limitations. Since response rate was significantly low, final sample was relatively small. This could potentially result in lower statistical probabilities of certain factors tested on this sample. Furthermore, our questionnaire is not standardised which could also have an influence on findings obtained in this research. We also point out that this research was conducted only in Zagreb, the capital of Croatia, so it is possible that attitudes of psychiatrists from other parts of Croatia could differ.

CONCLUSION

According to the results of our research, attitudes of psychiatrists towards LAIA are mostly positive, but considering the fact that there is a small number of their patients who are treated with them, we emphasize that psychiatrists still prescribe oral antipsychotics much more often than LAIA. Despite positive attitudes of patients towards LAIA, majority of psychiatrists think that patients would rather choose oral therapy. Exactly because of that, further researches on psychiatrists' and patients' attitudes towards LAIA are required in order to achieve better mutual understanding and gather additional useful information which may consequently lead to higher prescription rates of LAIA.

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Conflict of interest: None to declare.

Contribution of individual authors:

Mirta Ciglar: design of the study, collecting data, interpretation of data, writing the paper;
Sarah Bjedov: literature searches, interpretation of data, writing the paper;
Hrvoje Maleković: statistical analysis.

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