

## Clinical Research

# Clinical Predictors of Resistance to Antidepressant Therapy

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## Abstract

The aim of the study was to identify the predictors of treatment-resistant depression (TRD) with positive affectivity. The article presents the results of the examination of 96 patients with TRD. The studied patients were divided into two groups: in the first group consisted of patients with TRD having positive affectivity (n=59), in the second group consisted of patients with curable depression (n=37). The study had shown the highest correlation value of such factors as frequency of depressive episodes, duration and severity of the first depressive episode, the quality of remission after the first depressive episode.

**Key words:** *predictors of treatment-resistant depression, positive affectivity, frequency and duration of the episode, quality of remission.*

## Introduction

In recent years, the focus of treatment-resistant depression from the study of the effectiveness of antidepressants has shifted to the study of issues of individual sensitivity to antidepressant therapy. Despite the wide opportunities of antidepressant therapy, the problem of treatment resistance in depression remains relevant today. The most poorly understood now are the clinical predictors of effectiveness of antidepressant therapy. According to some data, the sudden onset of depression, its length and number of previous episodes, duration of 1st episode, inadequate therapy, delayed initiation of treatment or premature withdrawal, could be stronger predictors of not effective treatment with antidepressants. Analysis of modern features of treatment resistance predictions proves that only a comprehensive approach, the simultaneous consideration of the effect of several factors will reliably predict the effect of a particular individual antidepressant. Evaluation of treatment-resistant depression requires further clarification.

The problem of treatment-resistant depression (TRD) remains valid at all levels of mental health care since the

first antidepressant to the present time. Resistant depression occurs in medical practice more frequently than clinical trials data could demonstrate according to that threshold of the effectiveness of antidepressant monotherapy is limited and does not exceed 70%. 20-30% of patients with major depression do not respond to treatment with one antidepressant, given in adequate dose for a period sufficient to obtain a therapeutic effect [1, 4]. Roughly in half of these patients is favorable reaction to another antidepressant. According to other data, only 40 to 50% of patients with depression receiving antidepressants remain on this therapy and sensitive to it after 4-6 weeks of treatment. According to modern ideas, depression is considered resistant if in two consecutive courses (3-4 weeks) of adequate monotherapy with pharmacologically different drugs there is a lack of or insufficient clinical response (reduction of symptoms on the Hamilton or Montgomery scales is less than 50%) [2-4].

**The aim of the study** was to identify the predictors of treatment-resistant depression with positive affectivity.

## Material and methods

We examined 96 patients aged 18 to 48 years who were treated at the Municipal Clinical Psychiatric Hospital from 2008 to 2011. The studied patients were divided into two groups: in the first group consisted of patients with TRD having positive affectivity (n=59), in the second group consisted of patients with

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curable depression (n=37). All patients diagnoses were classified according to the criteria of ICD-10: (F31) - bipolar disorder; (F32) - a depressive episode; (F33) - recurrent depressive disorder.

## Results of the study

To identify risk factors of the development of therapeutic resistance to antidepressant therapy it was conducted clinical

**Table 1**

*The frequency of depressive episodes in both groups*

Groups	1-3 episodes		3-5 episodes		5-8 episodes		8 or more	
	Abs	%	Abs	%	Abs	%	Abs	%
1 <sup>st</sup> (n=59)	10	16.9±4.9	13	22.0±5.4	26	44.1±6.5	10	16.9±4.9
2 <sup>nd</sup> (n=37)	17	45.9±8.2*	11	29.7±7.5	5	13.5±5.6*	4	10.8±5.1

*Note: \* - p<0.01.*

From data from table 2 it is clear that the longer duration of first depressive episode observed more frequently in patients of 1<sup>st</sup> group with TRD (Table 2). The longer duration of attacks was frequently observed in first group (Table 3).

**Table 2**

*Duration of first episode*

Groups	Duration					
	1-6 months		6-12 months		1 year or more	
	Abs	%	Abs	%	Abs	%
1 <sup>st</sup> (n=59)	12	20.3±5.2	19	32.2±6.1	28	47.5±6.5
2 <sup>nd</sup> (n=37)	22	59.5±8.1*	11	29.7±7.5	4	10.8±5.1*

*Note: \* - p<0.001.*

**Table 3**

*Duration of the current episode*

Duration	1st group (n=59)		2nd group (n=37)	
	Abs	%	Abs	%
1-3 months	8	13.6±4.5	22	59.5±8.1*
3-6 months	23	39.0±6.0	15	40.5±8.1
6-30 months	28	47.5±6.5	0	0
Total	59	100	37	100

*Note: \* - p<0.001.*

Remissions observed in the 2<sup>nd</sup> group were characterized by a longer duration, have a higher quality in compare with remissions in patients of the 1<sup>st</sup> group. It was a tendency observed in the patients of the 1<sup>st</sup> group to shorten remissions. In all patients in the 2<sup>nd</sup> group remissions were characterized by a good quality and not affect to the deterioration of the social status of the patients (Table 4). Depressive episodes

and statistical analysis of the frequency of depressive episodes in both groups of patients.

In the analysis of number of depressive episodes - a statistically greater number of patients with 1-3 episodes observed in the 2<sup>nd</sup> group - 45.9% patients vs. 16.9% in the 1<sup>st</sup> one, however in the 1<sup>st</sup> group occurred the prevalence of patients having 5-8 depressive episodes - 44.1% vs. 13.5% in the 2<sup>nd</sup> group (Table 1).

of moderate severity prevailed in the 1<sup>st</sup> group - 54.2% patients vs. the 2<sup>nd</sup> group - 29.7% (Table 5).

**Table 4**

*Quality of remissions after the first depressive episode*

Remission	1 <sup>st</sup> group (n=59)		2 <sup>nd</sup> group (n=37)	
	Abs	%	Abs	%
Intermission	9	15.3±4.7	11	29.7±7.5
Remission with minor residual symptoms	22	37.3±6.3	16	43.2±8.1
Remission with severe personality disorders	28	47.5±6.5	10	27.0±7.3*

*Note: \* - p<0.05.*

**Table 5**

*Severity of the first depressive episode in study groups*

Severity	1st group (n=59)		2nd group (n=37)	
	Abs	%	Abs	%
Mild	6	10.2±3.9	19	51.4±8.2**
Moderate	32	54.2±6.5	11	29.7±7.5*
Severe	21	35.6±6.2	7	18.9±6.4*

*Note: \* - p<0.05; \*\* - p<0.001.*

Time duration before the initiation of adequate therapy of first depressive episode differed in length in both groups. In the 2<sup>nd</sup> group this interval was significantly shorter than that in the 1<sup>st</sup> one (Table 6).

**Table 6**

Time duration before the initiation of adequate therapy of first depressive episode

Time duration	1st group (n=59)		2nd group (n=37)	
	Abs	%	Abs	%
2-4 weeks	9	15.3±4.7	14	37.8±8.0*
8 weeks	17	28.8±5.9	3	8.1±4.5*
3-4 months	14	23.7±5.5	5	13.5±5.6
6 months or more	19	32.2±6.1	15	40.5±8.1

Note: \* - $p < 0.05$ .

## Conclusion

Thus, the study had shown the highest correlation value of such factors as frequency of depressive episodes, duration and severity of the first depressive episode, the quality of remission after the first depressive episode.

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