

## **Clinical effect of western medicine on patients with bipolar disorder and manic phase combined with non-convulsive electrical shock**

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**Keywords:** Bipolar Disorder; Manic Phase; No Convulsive Electrical Shock; Effect;

**Abstract:** The clinical effects of bipolar disorder (BPD) manic phase patients treated with western medicine combined with electroconvulsive therapy without convulsions were analyzed. Methods From March 2018 to March 2019, 62 patients with BPD mania in the author's unit were selected as the research objects, and they were divided into observation group and control group according to different treatment schemes, with 31 cases in each group. The control group was routinely treated with western medicine, and the observation group was treated with non-convulsive electrical shock on the basis of the control group. Results Compared with the effective rate of patients at 1 week, 2 weeks and 4 weeks, 67.7%, 80.6% and 83.9% of the observation group were higher than 51.6%, 67.7% and 71.0% of the control group,  $P < 0.05$ . After treatment, compared with BRMS, BPRS, and length of hospital stay between groups,  $P < 0.05$ . Conclusion Western medicine combined with non-convulsive electrical shock for the treatment of BPD manic phase is more satisfactory, the symptoms of psychosis and mania are more improved, and the length of hospitalization is shortened.

### **Introduction**

Bipolar affective disorder (BPD) is a mood disorder disease, which can be divided into manic, depressive, mixed episodes and other types according to its seizure characteristics [1]. At present, the etiology of BPD is not clear, and it is generally considered to be related to psychological, biological, social environment and other factors. In a mental health survey plan initiated by WHO in 2011, the lifetime prevalence of BPD worldwide is shown About 2.4% [2-3]. BPD is a mental illness that is difficult to treat and care in the clinic. If it is not effectively treated in time, it will have a great adverse effect on the prognosis of patients. This article specifically applies BPD non-convulsive single shock therapy based on Western medicine treatment. The results are reported below.

### **1. Subjects and methods**

#### **1.1 Subject Information**

Sixty-two patients with BP manic phase from March 2018 to March 2019 were selected as research objects, and they were divided into observation group and control group according to different treatment schemes, with 31 cases in each group. There were 21 males and 10 females in the observation group, aged 29-61 years, with an average age of  $(47.5 \pm 6.2)$  years. Education: 8 cases of junior high school and below, 13 cases of high school, and 10 cases of university and above. In the control group, there were 23 males and 8 males, aged 31-64 years, with an average age of  $(48.1 \pm 5.9)$  years. Education: 7 cases of junior high school and below, 15 cases of high school and 9 cases of university and above. Comparing the sex composition, age, and education of the two groups of patients,  $P > 0.05$ .

#### **1.2 Case selection criteria**

All 62 patients were admitted by our hospital and met the relevant diagnostic criteria in the third

edition of the Chinese Classification and Diagnostic Standard for Mental Disorders [4], and there were different degrees of mental retardation. The patients and their families were informed and volunteered to participate in this study. Patients with manic phase caused by severe physical disease and other reasons were excluded.

### 1.3 Method

The control group was routinely treated with Western medicine: ① intravenous injection of sodium valproate injection (Sanofi Winthrop, batch number: BX980005) 400 mg / times, twice a day; ② oral lithium carbonate tablets (Jiangsu Lianhuan Pharmaceutical Co., Ltd., National Medicine Standard) H32023141) treatment, the initial dose is 250mg / times / day, and can be increased by 250mg per week according to the condition, the daily dose is maintained at 250-750mg, and the blood lithium concentration of the patient is monitored during the medication (maintained at 0.8-1.2mmol / L). The observation group was treated with electroconvulsive therapy without convulsions on the basis of the control group. The treatment was performed once per day for the first 3 days, and then three times a week thereafter. Continuous treatment 8-12 times.

### 1.4 Efficacy indicators

The Young's Mania Scale (YMRS) [5] was used to evaluate the clinical efficacy of the patients at 1 week, 2 weeks, and 4 weeks. The YMRS scale score of the patients after treatment was more than 50% lower than that before treatment. . Beck was used at the time of patient enrollment and after treatment (end of treatment). The Rafaelsen Mania Scale (BRMS) [6] and the Concise Psychiatric Scale (BPRS) [7] evaluate patients. Both scales have higher scores for patients with more severe mental illness and manic symptoms. Record and compare the length of stay.

### 1.5 Statistical analysis

The data collection and processing in this study were completed by the author himself, and initially corrected using Epi Data 3.1 software. SPSS 20.0 statistical processing software was later included; count data was entered in the form of "n (%)", and  $\chi^2$  test was adopted;  $\bar{x} \pm s$  Enter the form, take t test; test level:  $P < 0.05$  shows that the difference in data comparison results is statistically significant.

## 2 Results

### 2.1 clinical effectiveness analysis

At 1 week, 2 weeks, and 4 weeks, the patients' effective rates were 67.7%, 80.6%, and 83.9% in the observation group, which were higher than 51.6%, 67.7%, and 71.0% in the control group,  $P < 0.05$ . See Table 1.

Table 1 Comparison of clinical effectiveness of two groups of patients [n (%)]

Group	Number of cases	1 Week	2 Week	4 Week
Observation group	31	21 (67.7)	25 (80.6)	26 (83.9)
Control group	31	16 (51.6)	21 (67.7)	22 (71.0)
$\chi^2$ value	-	5.385	4.341	4.764
$P$ value	-	0.020	0.037	0.029

### 2.2 Analysis of patient BRMS scale, BPRS scale and length of stay

At the time of enrollment, the BRMS and BPRS scales of the two groups were compared,  $P > 0.05$ ; after treatment, the BRMS, BPRS scale, and length of hospital stay were compared between the groups,  $P < 0.05$ . See Table 2.

Table 2 Comparison of BRMS, BPRS scale and length of stay in two groups of patients

Group	Number of cases	BRMS Scale (points)		BPRS Scale (points)		Length of stay (d)
		joining the group	After treatment	joining the group	After treatment	
Observation group	31	27.9±4.5	10.5±3.4	43.7±6.2	21.3±5.4	31.5±8.3
Control group	31	28.2±4.7	17.4±4.8	44.1±5.9	27.8±6.3	40.7±8.7
$\chi^2$ value	-	0.257	6.531	0.260	4.362	4.260
P Value	-	0.7983	<0.05	0.7956	<0.05	<0.05

### 3 Discussion

Bipolar affective disorder (BPD) manic phase is a more common psychiatric disease and a form of BPD. It can be seen in people of any age. If it is not effectively treated in time, it may lead to chronic chronic diseases. Serious harm to changing families and society. In the past, patients with BPD manic episodes were mainly treated with drugs. Drugs such as sodium valproate and lithium carbonate can effectively reduce oxidative stress injury. However, most patients in the clinic are slow to take effect, and blood lithium must be monitored during treatment. Concentration may affect patient's treatment compliance and thus affect clinical efficacy [8]. Therefore, it is important for patients to find a more effective and safe treatment.

Electroconvulsive therapy without convulsions is also known as electric shock therapy, which refers to a measure to achieve convulsive seizures under a certain amount of current to stimulate the brain. It is a treatment for mental illness [9]. Some scholars believe [10] that electric shock therapy can control and prevent mania, and also has antidepressant effect. From the results of this study, compared with the effective rates of patients at 1 week, 2 weeks, and 4 weeks, 67.7%, 80.6%, and 83.9% of the observation group were higher than 51.6%, 67.7%, and 71.0% of the control group.  $P < 0.05$ . This may be related to the electric shock therapy under the stimulation of an appropriate amount of pulse current, the patient's cerebral cortex showed extensive discharge, to stimulate the brain cells, to form physiological changes, thereby achieving the effect of enhancing efficacy. In addition, after treatment between groups, the BRMS scale, BPRS scale, and length of hospital stay compared with  $P < 0.05$ . It is suggested that electric shock therapy can improve the mental symptoms and manic symptoms of patients, and significantly shorten the hospital stay of patients. This is similar to the auxiliary application of anesthetics and muscle relaxants during electric shock therapy, which relieves the patient's nervousness to a certain extent, can reduce the patient's stress response, and is safer in clinical treatment.

The Western medicine combined with non-convulsive electrical shock for the treatment of BPD manic phase is more satisfactory, but the symptoms of psychosis and mania is more better, and the length of hospital stay is shorter.

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