

Morita Therapy Combined with Transcranial Magnetic Stimulation in the Treatment of Postpartum Depression in Primiparas and its Effect on Prolactin

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[Abstract] Objective: To explore the treatment of Morita therapy combined with transcranial magnetic stimulation in postpartum depression of primipara and its effect on prolactin. **Method:** From May 2018 to November 2019, 92 cases of postpartum depression and postpartum women who were treated in our hospital were randomly divided into 2 groups, 46 cases each. The control group was treated with transcranial magnetic stimulator, and the observation group was treated with Morita therapy on the basis of the control group. Both groups were treated continuously for 6 weeks. The degree of depression and prolactin levels of the two groups was observed. **Results:** After 6 weeks of treatment, the HAMD scores of the two groups were lower than before the treatment, and the observation group was the lowest. The prolactin levels of the two groups were higher than before the treatment, and the observation group was the highest. The difference was statistically significant ($P < 0.05$). **Conclusion:** Morita therapy combined with transcranial magnetic stimulation can effectively improve the postpartum depression of primiparas, increase the level of prolactin, and have a good clinical effect.

Keywords: Primipara; Transcranial magnetic stimulation; Morita therapy; Postpartum depression; Prolactin

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Due to the sudden change of social role, postpartum

maladjustment, lack of sleep and other reasons, primiparous women are prone to depression, which seriously endangers the physical and mental health of the parturient. And bad emotions will affect the endocrine system of the parturient, which is not conducive to prolactin and milk secretion. And hence it affects the growth and development of newborns^[1]. Therefore, it is particularly critical to take effective treatment measures in a timely manner to improve patients' depression. The purpose of this study was to explore the treatment of Morita therapy combined with transcranial magnetic stimulation in postpartum depression of primipara and its effect on prolactin. Now reported as follows.

1 Data and methods

1.1 Baseline data

92 cases of postpartum depression and postpartum women who were treated in our hospital from May 2018 to November 2019 were selected as the research objects and were randomly divided into 2 groups. In the control group, 46 patients were 22-34 years old, with an average age of (28.31 ± 2.65) years; the course of disease was 1-5 months, and the average course of disease was (3.14 ± 0.83) months. In the observation group, 46 patients were 22-34 years old with an average age of (28.31 ± 2.65) years; the course of disease was 1-6 months with an average course of (3.57 ± 0.79) months. Comparing the two sets of data, the difference was not statistically significant ($P > 0.05$) and was comparable. This study was approved by the Medical Ethics

Committee of our hospital.

1.2 Method

1.2.1 The control group

The patients were treated with a transcranial magnetic stimulator (Changzhou Siya Medical Devices Co., Ltd., Jiangsu Food and Drug Administration (approved) 2013 No. 2260448, specification: YS6004C), choosing a quiet and clean dark room to maintain the room temperature at 16-23 °C. The first 5 times of the first treatment of women were repetitively stimulated by the low frequency of 1 Hz and the threshold of 90% to the dorsal lateral cortex of the right prefrontal lobe, pulse number 1600, 1 time/d, continuous treatment for 5 days, rest 2 days; At Day 8, the frequency was adjusted to 10Hz high, and the threshold was 90%. The left prefrontal dorsolateral cortical area was repeatedly stimulated. The number of pulses was 1600, 1 time/d. Treated for 5 days weekly, rest for 2 days. Keep alternating the treatment of high and low frequency for 6 weeks.

1.2.2 The observation group

Morita psychotherapy was used to intervene on the basis of the control group to explain the causes of postpartum depression, the principles and specific operations of Morita therapy to the women and their families. The first stage: to guide the parturient to get rid of the anxiety and depression, encourage the parturient to try to accept the pain, prohibit the parturient from talking with others, reading, playing mobile phones and other entertainment, and guide the parturient to bed rest for 1 week; The second stage: to emphasize that the parturient should not deliberately get rid of negative emotions and encourage them to face it positively, emphasize the importance of normal actions, encourage parturient to carry out some indoor activities such as housekeeping, origami, reading, etc. They should insist on writing Morita diary at night to record their emotional and psychological state changes and to cultivate a regular life style. And to guide the parturient to feel pleasant after the activity for 2 weeks. The third stage: outdoor activities was included in indoor activities, clearly proposing the concept of “going with nature and doing what is right” and other concepts. And parturient were encouraged to accept the current state, devote themselves to work outdoors, and to distract their attention, and establish awareness of long-term persistence for 2 weeks. The fourth stage: to restore social and communication of parturient, cultivate role and work adaptability of

parturient, help patients formulate reasonable schedules, diet and exercise plans, instruct the maternal to adopt a natural attitude to face life and experience the feeling of self-control. And self-analysis was conducted to record your own feelings and experience for a week.

1.3 Evaluation index

(1) Depression level: Before treatment and after 6 weeks of treatment, the Hamilton Depression Scale (HAMD) was used to evaluate the degree of depression of the patients, with a total score of 54 points^[2]. The higher the score, the more severe the depression. (2) Prolactin level: 5ml of maternal venous blood was taken before treatment and after 6 weeks of treatment, centrifuged for 10min, and the upper serum was taken for prolactin determination kit (chemiluminescence method) (Sichuan Mike Biotechnology Co., Ltd., Sichuan Food Pharmacy Supervision (approved) 2013 No. 2400080, specification: 100 tests/box) to determine the level of prolactin in women.

1.4 Statistical methods

SPSS 20.0 software was used for data processing and $\bar{x} \pm s$ was used to express measurement data. Independent sample t was used to test between groups and paired sample t was used to test within groups. $P < 0.05$ indicated statistical significance in differences.

2 Results

2.1 HAMD score

Before treatment, there was no significant difference in HAMD score between the two groups ($P > 0.05$); after 6 weeks of treatment, the HAMD score of both groups was lower than before treatment, and the observation group was even lower. The difference was statistically significant ($P < 0.05$). See Table 1.

Table 1. Comparison of HAMD score between two groups ($\bar{x} \pm s$, point)

Group	Before treatment	After treatment	t	P
Control group(n=46)	20.83±1.14	12.75±1.03	35.669	0.000
Observation group(n=46)	21.06±1.21	10.12±1.01	47.076	0.000
t	0.938	12.365		
P	0.351	0.000		

2.2 Prolactin levels

Before treatment, the prolactin levels of the two groups were compared, the difference was not statistically significant ($P>0.05$); after 6 weeks of treatment, the prolactin levels of the two groups were higher than before treatment, and the observation group was higher, the difference was statistical Academic significance ($P<0.05$). See Table 2.

Table 2. Comparison of Prolactin levels between two groups ($\bar{x} \pm s$, $\mu\text{g/L}$)

Group	Before treatment	After treatment	t	P
Control group(n=46)	213.75±13.54	302.47±21.91	23.363	0.000
Observation group(n=46)	213.52±13.49	363.52±26.18	34.544	0.000
t	0.082	12.129		
P	0.935	0.000		

3 Discussion

Due to changes in the endocrine environment of the pregnant women during pregnancy, changes in social roles after childbirth, lack of sleep after childbirth, and excessive fatigue in taking care of babies, it is easy to cause postpartum depression. It is not conducive to the postpartum body recovery of the parturient and affects the milk secretion, which is not conducive to the normal growth and development of the newborn^[3]. Therefore, seeking efficient and safe treatment methods to improve maternal depression can greatly help their physical recovery and feeding newborn.

The results of this study showed that the HAMD scores of both groups after 6 weeks of treatment were lower than before treatment. And the observation group was even lower, and the prolactin levels in both groups were higher than before treatment, and the observation group was even higher, indicating that Morita therapy combined with transcranial magnetic Stimulation can effectively improve the postpartum depression of primiparas. It can also increase the level of prolactin, and has a good clinical effect. Transcranial magnetic stimulation is a non-invasive, painless, and highly safe treatment method. It can improve the maternal cerebral cortical nerve cells by repeatedly stimulating neurons in the dorsal and lateral and prefrontal areas in the maternal cerebral cortex with low-frequency and high-frequency. It can improve the action potential of cerebral cortical nerve cells in parturient, and increase the excitability of the cerebral cortex, improve clinical symptoms such as maternal irritability, palpitation, and sadness, thereby producing a certain antidepressant effect, increasing

maternal prolactin secretion and prolactin levels^[4]. Morita Therapy has a systematic, unique and effective psychological foundation. It advocates the treatment concept of “going by nature and doing what is right”, encouraging women to accept their own negative emotions naturally, do not pay too much attention to their symptoms, and focus on the surrounding environment, learn to live peacefully with negative emotions and physical conditions, and live and work normally,

thereby promoting the relief of depressive symptoms, improving maternal endocrine disorders, and promoting prolactin secretion^[5]. The joint intervention of the two can quickly improve the maternal depression, promote maternal body recovery, and improve the treatment effect.

In summary, Morita therapy combined with transcranial magnetic stimulation can effectively improve the postpartum depression of primiparas, increase the level of prolactin, and have a good clinical effect.

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