

## RTMS may be a good choice for pregnant women with depression

Dongjun Zhang · Zeqing Hu

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**Abstract** Due to the possible adverse effects on fetus, the treatment of pregnant women with depression is a difficult problem in the field of psychiatry. Repetitive transcranial magnetic stimulation (rTMS) was used to treat three pregnant women with depression in the early pregnancy. After systemic treatments, the patient's depressive symptoms significantly relieved, and each of them smoothly provided a healthy baby. Up to now, we have not found that rTMS can be harmful to fetuses. RTMS may be a good choice for pregnant women with depression.

**Keywords** Repetitive transcranial magnetic stimulation (rTMS) · Pregnant women · Depression · Treatment

Dear Sir:

As the symptoms of depression have adverse impacts on pregnant women and fetuses, many experts have been

studying the treatment of pregnant women with depression. However, we have not found an appropriate treatment until now. In the US, the Food and Drug Administration has not approved any kind of the antidepressant drugs which could be used for pregnant women. Adrienne Einarson et al. (2008) concluded that paroxetine did not appear to be associated with an increasing risk of fetal defects following use in early pregnancy. But Barbara Mintzes and Jureidini (2008) questioned the former conclusion. As we know, due to the possibility of adverse effects on the fetus, there are still a lot of controversies in the area of applying antidepressant to pregnant women. The treatment of depression in pregnant women also is a difficulty in the field of psychiatry, but repetitive transcranial magnetic stimulation (rTMS) may be a good choice for pregnant women with depression.

RTMS is a new neuro-electrophysiological technique, which is developed on the basis of transcranial magnetic stimulation (TMS). With its unique characteristics of non-invasion, simplicity, and security, rTMS has been widely applied in the areas of research and therapies for neuropsychiatric diseases, especially for treating depression. RTMS can enhance the excitement of the brain through adjusting the biological activities of the cerebral cortex and then has wide biological effects, which is one basic mechanism of therapy for depression (Wassermann and Lisanby 2001). Many researchers (Shajahan et al. 2002) found that rTMS was effective in treating depression and the by-effects were not obvious. However, few scholars tried to use rTMS to treat pregnant women with depression for its uncertain effects.

In our hospital, three pregnant women with depression received the therapy of rTMS in the early pregnancy. After systemic treatments, the patient's depressive symptoms

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The letter has *not* been presented at any meeting.

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D. Zhang · Z. Hu  
Department of Forensic Psychiatry, Sichuan University,  
No.17, 3-th Section of South People Road, Sichuan,  
Chengdu 610041, People's Republic of China

Z. Hu (✉)  
Mental Health Center of West China Hospital, Sichuan University,  
Sichuan,  
Chengdu 610041, People's Republic of China  
e-mail: huzeqing@126.com