

## Early symptom non-improvement and aggravation are associated with the treatment response to SSRIs in MDD: A real world study

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### Abstract

**Purpose:** Early improvement has been proved to be able to predict the long-term treatment response. However, there is still no efficient strategy for switching medications when a patient failed to reach early improvement at the second week. This study focused on the predictive value of treatment-related symptom aggravation, which is a mixture of side effects, nocebo effects and disorder itself, in each item of the HAMD scale for the treatment response to SSRI monotherapy to provide a reference for switching antidepressants to enhance early treatment efficacy.

**Patients and methods:** Our study was an observational real-world study that enrolled 90 first-onset untreated outpatients in the outpatient department of Huashan Hospital. Patients who did not achieve the threshold of early improvement in the second week after starting treatment were switched to another SSRI monotherapy. The patient was followed up at 2, 4, 8 and 12 weeks after initiation of treatment. We analysed the relationship between the data with the change in each symptom on the HAMD-17 scale and the treatment efficacy.

**Results:** Early improvement predicted the treatment response at the end of 12 weeks ( $\chi^2=19.249$ ,  $p<0.001$ ), whereas early non-improvement in difficulty with falling asleep (OR=9.487, 95% CI: 1.312-68.588) and mood anxiety (OR=12.947, 95% CI: 1.99-82.246) were associated with a poor response. At Week 2, general somatic symptom aggravation was associated with a poorer response (OR=73.337, 95% CI: 2.232->>1); treatment-emergent headache ( $t=-9.521$ ,  $p<0.001$ ) and tremor ( $t=3.660$ ,  $p=0.001$ ) were associated with treatment efficacy. In addition, the increase in suicidal thoughts once treatment began had no relationship with the treatment response (OR=0.821,  $P=0.872$ ).

**Conclusion:** This study suggests that patients with early non-improvement in falling asleep and anxiety are not suitable for switching SSRI monotherapy. Patients with treatment-emergent symptoms, especially headaches and tremors, are not suitable for switching monotherapy to another SSRI.

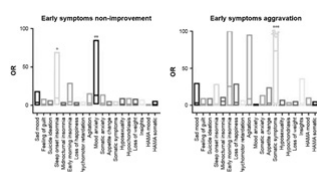


Figure 2 ORs for each early symptom improvement in the 17 items of the Hamilton Depression Scale (HAMD-17) at week 2 to predict treatment response at week 12.  
Notes: \*P<0.05; \*\*P<0.01; \*\*\*P<0.001.  
Abbreviations: HAMD, Hamilton Anxiety Scale.

### Biography

Hsinsung Yuan has her expertise in improving early treatment effect in major depressive disorder and anxiety-related disorder through facilitating elaborate measurement and datafication of the treatment-related symptoms changes. She has devoted in modelling symptoms connection patterns which flowing on the basis of the development of personality and its interaction with complex real world information in order to individually moderate treatment in early treatment stage to improve well-being and satisfaction in patients

### Publication

- Yuan H, Zhu X, Luo Q, Halim A, Halim M, Yao H, Cai Y, Shi S (2019) Early symptom non improvement and aggravation are associated with the treatment response to SSRIs in MDD a real world study. *Neuropsychiatric Disease and Treatment* 15: 957-966.
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