

POSTER PRESENTATION

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The psychiatric effects of varenicline on patients with depression

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Background

Varenicline is currently the most effective smoking cessation medication. Pre-marketing clinical trials excluded participants with psychiatric disorders, such as major depressive disorders. This study investigated the psychiatric effects of varenicline among patients with depression.

Methods

On 18 December 2012, a systematic search was performed using Medline with the following search terms: 1) varenicline and 2) depression. The search was limited to English articles, case reports, and original clinical studies. From the 58 retrieved documents, 15 articles were used in this review.

Results

The first case report on the effects of varenicline on patients with depression was published in June 2008. A man experienced an acute exacerbation of depressive symptoms, which resolved after he stopped his varenicline treatment. [1] Since then, there were 8 other case reports that described exacerbation of psychiatric symptoms in patients with depression taking varenicline [2-9]. Two of those case studies suggested the use of sertraline [7] and bupropion [8] to treat exacerbation of depressive symptoms associated with varenicline. In contrast, varenicline was shown to improve the affective symptoms of a smoker who developed depression and suicidal tendencies during previous cessation attempts [10]. There were 3 observational studies on patients with depression taking varenicline: 1) a one-year follow-up study on 112 smokers showed an association between increased Beck Depression Inventory score and continued smoking after 12 weeks of varenicline [11]; 2) an open-labelled study showed significant improvement in mood in 110 outpatient smokers

with persistent depressive symptoms [12]; and 3) A smoking cessation trial on 217 varenicline users showed that depressive symptoms at the time of varenicline initiation (measured by Patient Health Questionnaire-2) were associated with suicidal ideation. [13] There were 2 clinical trials on patients with depression taking varenicline, with both of them showing worsening of psychiatric symptoms. [14,15] Neither of the trials were placebo-controlled.

Conclusions

Despite some inconsistencies, the findings suggested that varenicline could worsen psychiatric symptoms in patients with depression. Clinicians should be advised to closely monitor patients with a history of depression on varenicline, although there were no studies on how to treat those patients. Bias and uncontrolled confounders potentially affected previous studies, and thus, a double-blinded placebo-controlled trial is needed to demonstrate the efficacy and side effects of varenicline on patients with depression.

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