Simple Test Might Predict Suicide Risk in People Starting Antidepressants

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A simple and relatively inexpensive test accurately predicted which people would develop suicidal thoughts within 48 hours of starting a new antidepressant regimen, according to a news release by researchers at the University of California in Los Angeles (UCLA).

These findings—to be published in the April issue of the journal *Acta Psychiatrica Scandinavica*—could be an important step forward in treating depression, as a small number of people starting treatment can develop worsening suicidal thoughts and are at higher risk of attempting suicide. This problem is made more frustrating by the inability to predict in whom this side effect will occur.

Now, Aimee Hunter, PhD, and her colleagues at UCLA report that it might be possible to use a quantitative electroencephalographic (QEEG) test, which measures electrical activity in the brain, to predict who will develop worsening suicidal symptoms. Hunter and her colleagues treated 72 people with major depressive disorder with one of two antidepressants—Prozac (fluoxetine) or Effexor (venlafaxine)—or a placebo. Of the 37 people who were given active drugs, 13.5 percent developed worsening suicidal thoughts.

The QEEG test showed that electrical activity dropped significantly in the front right-hand side and middle of the brain in areas known for the control of emotion. The drop in activity only occurred in people who had worsening suicidal thoughts. Of interest, though 23 percent of people taking a placebo also had worsening suicidal thoughts, none had a drop in electrical activity to the parts of the brain associated with the problem in people starting antidepressants.

“This is the first study to show a change in brain function after the start of medication that appears to be linked to the subsequent development of worsening thoughts of suicide during antidepressant treatment,” Hunter said. “Importantly, changes in this biomarker did not predict worsening suicidal thoughts in the placebo-treated subjects, so the results suggest that the biomarker specifically detected medication-related worsening only.”

Hunter’s team explains that the QEEG test is noninvasive and relatively inexpensive. It requires only applying electrodes on the outside of the head.

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