Section Contents

Introduction

Editor's note: The Focus on Geriatric Psychiatry section is now under the direction of Gary W. Small, MD, and Helen Lavretsky, MD. *JCP* is indebted to Ipsit Vahia, MD, for his editorial assistance in developing this section.

This Focus on Geriatric Psychiatry section of the *Journal* presents 4 articles addressing the relationship of antidepressant or antipsychotic drugs to the risk of dementia or incident cerebrovascular disease, as well as brain structural and functional changes associated with treatment. As the global population ages, the rates of late-life depression and dementia are expected to increase. Late-life mood disorders carry an additional risk for cognitive decline, and patients who develop dementia are also at risk for mood disturbances. The links between depression and dementia or cerebrovascular disease have been examined previously, but not in terms of the exposure to different classes of antidepressants. The field of investigating the mechanisms of treatment response using neuroimaging is still very new, and imaging tools can potentially guide the development of personalized treatment approaches. Therefore, each article in this month's section represents a substantial contribution to the field of geriatric psychiatry.

The link between antidepressant use and incident dementia is examined by Lee and colleagues, who report results from an epidemiologic study of the relationship between the incidence of dementia and treatment with different antidepressant drugs, using the Taiwan National Health Insurance Research Database of over 10,000 cases. The authors found that treatment with tricyclic antidepressants (TCAs) was associated with a reduced risk of dementia, whereas treatment with selective serotonin reuptake inhibitors (SSRIs), monoamine oxidase inhibitors, and other antidepressants was associated with an increased risk of dementia. The findings are novel and of interest, particularly the counterintuitive reduction in the risk of dementia associated with the use of TCAs compared to other classes of antidepressants. The association of TCA use and lower dementia risk could be potentially explained by more successful treatment of more severe depression using TCAs compared to other classes of antidepressants.

Lin et al compared the effects of dual-action antidepressants (serotonin-norepinephrine reuptake inhibitors [SNRIs]) to those of single-action antidepressants (SSRIs) on cerebrovascular events, using information on the incidence of stroke from a national database. The authors observed a nonsignificant trend toward increased intracranial hemorrhage in SNRI users versus SSRI users, and they cautioned against the use of SNRIs in patients without depression. This evidence is also clinically useful for psychiatrists and primary care physicians who may be treating older depressed patients who are at increased risk for stroke.

Wang and coworkers used whole-brain functional network analyses from resting state functional magnetic resonance imaging to examine patterns of alteration in brain network connectivity in 33 patients with remitted late-onset depression compared to 31 healthy controls. The patients exhibited abnormal global topology in functional brain networks that correlated with their cognitive performance. This novel information provides an insight into functional brain connectivity of successfully treated older adults with late-onset depression, who continue to show functional brain abnormalities even in remission, which may put them at risk for depression relapse.

Finally, the article by Lee and colleagues assessed gray matter volumes in relation to treatment response to risperidone in antipsychotic-naive patients with Alzheimer's disease. Reduction in symptoms in response to risperidone was associated with increased volumes in the putamen, amygdala, and parahippocampal gyrus. This article adds to the limited literature on structural brain changes predictive of treatment response to antipsychotic medications used for behavioral disturbances associated with Alzheimer's-type dementia.

Cognitive and mood disorders afflict a growing number of older adults. Despite considerable advances in diagnosis and treatment of these often overlapping conditions, more effective and targeted treatment strategies are clearly needed. The original and incremental findings of these articles provide valuable insights of practical clinical relevance to our readers.

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