NACC Project #2005-JI-09 (Secondary Analysis of NACC data)
“Neuropathological Changes in Dementia in Patients with Co-morbid Depression”

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Project Work Dates
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Project Description
To our knowledge, there have been no systematic studies of neuropathological changes and cognitive decline over time in Alzheimer’s disease and vascular dementia as a function of history of major depression. Such research would have great clinical significance in that the identification of potential mechanisms that link geriatric depression as a treatable risk factor to neuropathological changes in Alzheimer’s disease and vascular dementia and to the progression of cognitive decline in the dementias may lead to the development of differential intervention and prevention strategies, be they pharmacological or non-pharmacological in nature. Our objective is to describe the co-morbidity of dementia and depression using the NACC sample baseline assessment. Our primary hypotheses are that co-morbid depression accelerates the rate of cognitive decline and increases the extent of neuropathological lesions in vascular dementia and Alzheimer’s disease. Using hierarchical multi-level mixed modeling cognitive change will be analyzed as a function of dementia (vascular versus Alzheimer’s disease versus none), depression co-morbidity, and cardiovascular-comorbidity. The extent of neuropathological lesions will be analyzed as a function of group membership in a 2 (vascular dementia versus Alzheimer’s disease) by 2 (absence versus presence of depression co-morbidity) analysis of covariance. In our aging society, it is of paramount importance to focus on both the prevention and treatment of dementia. We have known for some time that major depression is a treatable risk factor for dementia. This work will help us understand some of the underlying mechanisms. We hope such research will help to encourage patients to seek specialist care for major depression early on, in order to alleviate the tremendous burden both mood disorders and dementia place on our rapidly growing aging population.

Contact Information
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