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**Project Title**

The gender difference in vascular risk factors, early cognitive impairment and progression to dementia

**Project Summary**

The effects of hypertension treatment on cognitive impairment is limited, and debate remains as to whether controlling hypertension leads to better cognitive outcomes, especially for overt dementia. Using data from the CSHA, we found that hypertension is associated with executive dysfunction, which contributes to the progression of dementia, but not memory dysfunction or overall cognitive impairment. It may be that executive dysfunction is characteristic of cerebrovascular disease, and that vascular risk factors significantly affect this domain. Some studies have indicated that women have a higher risk incidence rate of dementia than men, while others have not shown a difference. It is unclear whether women have a higher vascular risk than men and develop cognitive impairment, as well as progression to dementia. Therefore, our goal is to explore gender difference in vascular risk factors, treatment, and their association with cognitive impairment using data from the Canadian Longitudinal Study of Aging.

**Keywords**

Cognitive impairment; Vascular risk factors; Hypertension; Executive dysfunction; Dementia