



CHARACTERIZING SMALL VESSEL DISEASE IN NATIVE HAWAIIAN AND OTHER PACIFIC ISLANDERS WITH DEMENTIA: A RETROSPECTIVE PILOT STUDY

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Objectives Small vessel disease (SVD), a major cause of age-related cognitive decline, affects small cerebral blood vessels, leading to cerebral hypoperfusion. Native Hawaiians and other Pacific Islanders (NHOPI) are reported to have higher rates of vascular risk factors of SVD, such as hypertension. This study aims to characterize the prevalence and severity of SVD in NHOPI dementia patients compared to their Caucasian and Asian counterparts.

Methods This retrospective chart review analyzed data from dementia patients ≥ 18 years old with a brain MRI and MMSE score between 23-27. Each NHOPI patient was matched with a Caucasian and Asian patient based on age, sex, and MMSE score. Patient charts were reviewed for demographics, comorbidities, medications, and SVD MRI findings at time of presentation of memory concerns.

Results Overall, 108 patients were included, with 36 patients in each racial group, a mean patient age of 72.1 years, and 72 (66.7%) females. NHOPI patients had a higher BMI ($p < 0.001$) and higher rates of hypertension ($p = 0.024$), diabetes mellitus ($p = 0.020$), and coronary artery disease ($p = 0.026$). NHOPI had higher rates of reporting attention deficits as a symptom of dementia ($p = 0.015$). However, there were no significant differences in prevalence or severity of white matter lesions, subcortical infarcts, or brain atrophy among the racial groups.

Conclusion

NHOPI patients were significantly associated with higher rates of vascular risk factors and showed differences in presentation of dementia. Further investigation is needed to identify potential preventative targets and improve risk predictions for individuals with SVD.