



Racial Disparities in Cardiometabolic Disorders Among Alzheimer's Disease Patients: A Study on Native Hawaiians and Pacific Islanders

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Background: Cardiometabolic disorders may accelerate the progression of Alzheimer's disease (AD), potentially impacting ethnic-racial groups with a higher prevalence of diabetes, obesity, and cardiovascular disease, though limited data exists on Native Hawaiians and Pacific Islanders (NHPI) populations.

Objective: This study aims to examine the prevalence of diabetes and associated comorbidities among AD patients from different ethnic-racial groups - Asians, Whites, and NHPs - in Hawaii, with a focus on identifying risk factors linked to AD.

Method: A retrospective review was conducted on AD patient records from a single center in Hawaii, spanning June 2018 to June 2024. Variables assessed included age at diagnosis, sex, race, insurance type, alcohol use, comorbidities, and Mini-Mental State Examination (MMSE) scores. Statistical comparisons were conducted to identify group differences.

Results: Among 540 patients (256 Asians, 89 NHPs, 182 Whites, and 13 Others), NHPs exhibited the highest rates of hypertension (66.3%), diabetes (31.5%), obesity (23.6%), congestive heart failure (13.5%), and coronary artery disease (6.7%). Whites exhibited a higher prevalence of anxiety (18.1%), cardiac arrhythmia (15.4%), and alcohol use (37.4%) compared to Asians and NHPs. Females had lower mean MMSE scores compared to males (18.3 ± 7.4 vs. 21.0 ± 6.2 , respectively), along with higher rates of anxiety (16.3%), hypertension (62.2%), hyperlipidemia (47.4%), and underweight body mass index (10.8%).

Conclusion: NHP AD patients in Hawaii face a higher prevalence of diabetes and a greater burden of cardiometabolic disorders compared to other racial groups. White AD patients demonstrate higher rates of anxiety, alcohol consumption, and cardiac arrhythmia compared to Asians and NHPs. Females with AD had worse cognitive function compared to males.

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