



## Exploring Radiculopathy in Underserved Communities: A Focus on AANHPI Populations

Anita J. Cheung MPH<sup>1,2</sup>, Matthew K. Nishimura<sup>1,3</sup>, Kai J. Miyaki<sup>1,4</sup>, Tea A. Stephens<sup>1,5</sup>, Edward J. Weldon<sup>1,2</sup>, Julia R. Jahansooz MS<sup>1,2</sup>, Anson Y. Lee<sup>1,2</sup>, Masako Matsunaga PhD, MPH, MS, RDN<sup>2</sup>, Jason C. Chang MD<sup>1,2</sup>, Enrique Carrazana MD<sup>1,2</sup>, Jason Viereck MD, PhD<sup>1,2</sup>, Kore K. Liow MD, FACP, FAAN1,<sup>1,2</sup>

1. [Spine & Pain Management Center, Hawaii Pacific Neuroscience](#)
2. John A. Burns School of Medicine, University of Hawaii, Honolulu, HI
3. Pitzer College, Claremont, CA
4. Boston University, Boston, MA
5. University of Hawaii, Honolulu, HI

### Background/ Objectives:

Radiculopathy (RP) is a debilitating nerve compression condition. This study aims to address the paucity of research on RP in Asian American, Native Hawaiian and other Pacific Islanders (AANHPI) populations and to identify differences in clinical presentation, comorbidities, and treatment of AANHPI in contrast to other ethnocultural racial groups in Hawaii.

### Methods:

This retrospective cohort study utilizes data from a single neurological care center in Hawaii. Adults aged  $\geq 18$  years diagnosed with RP between 2016-2023 were identified using ICD10 codes. Patients without electromyography (EMG), magnetic resonance imaging (MRI), or sufficient demographical data were excluded. Statistical analysis was completed on R, with  $p < 0.05$  considered statistically significant.

### Results:

Data from 1287 out of 1,640 patients are included in the analysis, with 353 excluded. The cohort consisted of 28% Asians and 20% NHPs. NHPs had the youngest age of diagnosis, while Asians had the highest age of diagnosis ( $p < 0.001$ ). AANHPI populations were likelier to have public insurance ( $p < 0.001$ ). NHPs had the highest rates of obesity ( $p < 0.001$  while Asians had the lowest ( $p < 0.001$ ). AANHPIs were more likely to have more than two medical comorbidities ( $p < 0.001$ ) and higher rates of hypertension ( $p < 0.001$ ), hyperlipidemia ( $p < 0.001$ ), hypercholesterolemia ( $p < 0.001$ ), and diabetes ( $p < 0.001$ ). AANHPIs were mainly treated with medications and were less likely to have received physical therapy, steroid injections, or surgery ( $p = 0.042$ )

### Conclusion:

AANHPI patients are more likely to be publicly insured, have multiple comorbidities, and are less likely to receive specialized treatments. NHPs are diagnosed earlier and have higher rates of obesity. These findings are important for addressing underlying comorbidities and treatment disparities amongst AANHPI patients