EPIDEMIOLOGY, DETERMINANTS, AND FUNCTIONAL STATUS OF SCIATICA: A LARGE-SCALE POPULATION-BASED STUDY IN CHINESE

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INTRODUCTION: The prevalence, risk factors, and outcomes of sciatica have been sporadically reported in the literature, largely patient-based and mainly related to Caucasians. The following study addressed the epidemiology, determinants, and functional status of sciatica within a Chinese population.

METHODS: A cross-sectional populationbased study of 2,597 Southern Chinese was performed assessing sagittal T2-weighted lumbar MRIs for the presence of radiographic findings from L1-S1 (e.g. HIZ, Modic changes, Schmorl's nodes). A summated disc bulge/extrusion (DBE) score was obtained of all levels. Self-reported sciatica during the past year was assessed. Subject demographics, environmental/lifestyle factors, and functional status (i.e. SF-36, ODI) were also assessed.

RESULTS: There were 60% females and 40% males (mean age: 42 years). The overall prevalence of sciatica was 39.4%, which increased with progression of each age category (p=0.005). An elevated DBE score was found in subjects with reported sciatica (mean: 0.80) compared to those without (mean: 0.63) (p<0.001). DBE was most prevalent prevalent at L5-S1 (31.3%) and L4-L5 (24.3%). Based on an adjusted multivariate model, DBE (OR: 1.36; 95% CI: 1.15-1.60), females (OR: 1.38; 95% CI: 1.17-1.64), obesity (OR: 1.68; 95% CI: 1.25-2.24), and moderate/heavy workload (OR:1.74; 95% CI: 1.11- 2.74) were associated with sciatica. Subjects with sciatica reported worse SF-36 and ODI functional outcomes (p<0.05).

DISCUSSION: This is one of the largest population-based studies to assess demographics, environmental/lifestyle, functional, and imaging factors in relation to the development of self-reported sciatica. DBE, females, obesity, and moderate/heavy workload were significant determinants associated with sciatica. Decreased functional status was also more prevalent in sciatica subjects.