

Occupational and Personal Factors Associated with Acquired Lumbar Spondylolisthesis of Urban Taxi Drivers

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摘要

Abstract

AIMS: To investigate the occupational and personal factors associated with lumbar spondylolisthesis in taxi drivers. **METHODS:** Cross-sectional analysis of the baseline data from the Taxi Drivers' Health Study cohort. Information was retrieved from the medical records of standardised lumbosacral spine plain films, age, and anthropometric measures of 1242 subjects. Acquired spondylolisthesis (ASL) was defined as non-lytic spondylolisthesis involving lumbar spines above L5. Questionnaires were used to gather information on demographic features, health behaviours, exercise, work related physical and psychosocial factors, and driving time profiles. Multiple logistic regression was used to model the odds ratio (OR) for prevalent ASL cases associated with personal and occupational factors. **RESULTS:** A total of 40 cases (3.2%) of ASL were diagnosed. Among those driving ≤ 5 years, 6-15 years, and >15 years, the estimated prevalence of lumbar spondylolisthesis was 1.1%, 2.4%, and 7.1% respectively. Results of multiple logistic regression suggested that taxicab driving >15 years (OR = 3.4, 95% CI 1.1 to 10.7, compared to driving ≤ 5 years), age (OR = 2.6, 95% CI 1.1 to 6.6 for age 46-55; and OR = 4.8, 95% CI 1.8 to 12.9 for age >55), body mass index ≥ 25 kg/m² (OR = 2.2, 95% CI 1.1 to 4.6), and frequent strenuous exercise (OR = 2.2, 95% CI 1.1 to 4.5) were significantly associated with higher prevalence of spondylolisthesis. There was a consistent likely exposure-response relation between professional seniority and ASL prevalence. **CONCLUSIONS:** Longitudinal studies are needed to confirm the observed association between professional driving and spondylolisthesis, and to examine further the specific occupational exposures accountable for this association.