

Prevalence and associated factors of suspected carpal tunnel syndrome among personnel in a hospital

Kanya Janpol MSc, Charuwan Manmee PhD, Wannakorn Homsuwan BSc, Sinjai Invichai BSc

Department of Research and Technology Assessment, Rajavithi Hospital, Bangkok, Thailand.

Background: Carpal Tunnel Syndrome is a condition affecting the hand and wrist resulting in health impacts and productivity of the work. This study aimed to assess prevalence of suspected carpal tunnel syndrome (CTS) and associated factors among personnel working in Rajavithi Hospital, Bangkok, Thailand.

Methods: A cross-sectional study was conducted in 1,580 personnel. Eligible participant has worked in the current position at least 1 year was recruited. Data were collected using a symptom questionnaire (the Katz hand diagram). Sex, age, years of working, shift work, health status and behavior and employment history were collected. Binary logistic regression was performed to assess the associations between suspected carpal tunnel syndrome and associated risk factors. The Ethics committees, Rajavithi hospital approved this study.

Results: The mean±SD of participant's ages was 39.3±11.6 years old. The majority of personnel were female. Almost 35% of participants were nurses and supportive staffs. The results revealed that 34.9% of personnel had suspected carpal tunnel syndrome. Multivariate analysis revealed that tea and coffee consumption (OR 1.59, 95%CI 1.15-2.20), drug use (OR 1.41, 95%CI 1.02-1.95), poor sleep quality (OR 1.41, 95%CI 1.05-1.88), longer use computer (OR 1.20, 95%CI 1.02-1.41) and heavy work activities for hand and arm (OR 1.30, 95%CI 1.08-1.56) were significantly associated with suspected CTS ($p<0.05$). Of 270 suspected CTS cases, 106 were confirmed for CTS by clinical examination.

Discussion: The prevalence of suspected CTS is more likely to be high and consistent with previous studies. Tea and coffee consumption, drug use, quality of sleep, work with computer for long time and work with heavy activities are factors associated with suspected CTS. The use of hand diagrams may be used for early screening and contributed to physical and clinical examination in the risk group.

Keywords: Carpal tunnel syndrome, Occupational health, Work task-related factors, Work posture



สำเนาถูกต้อง