營造業從業人員手-手臂振動暴露量之評估與相關職業傷害之調查

胡世明[1.]，何先聰[1.]，陳連輝[1.]，劉玉文[1.]，黃靖茹[2]

[1.]嘉南藥理科技大學職業安全衛生系，[2.]嘉南藥理科技大學環境工程與科學所

本研究調查經常被營造業使用的手持動力工具種類與機型，依 ISO 5349/1986 及參考 ISO 8662 以田野調查的方式量測這些手持動力工具之振動量大小並同時輔以問卷訪問使用者之使用習慣及其自覺症狀，期能找出振動暴露量大小、暴露時間長短、操作習慣等與職業傷害間之相關性。

問卷以抽樣的方式調查了 195 位本國營造業從業人員，受試者平均年齡為 39.23 歲(s.d. =9.34) ，平均工作年資為 13.48 年 (s.d. =9.28) 。每位受試者使用手持動力工具的種類平均為 2.73 種，顯示使用的種類並不固定。根據調查分析的結果顯示手指麻痛症狀盛行率為 27.3%，平均約操作 5.88 年時就會有手指麻痛的現象產生；指尖變白現象盛行率為 4.8%，平均約操作 7.25 年時就會有指尖變白的現象發生；手指麻痛現象主要與操作手工具的時間相關 ($F=20.42, p<0.001$)，而操作動力手工具的受試者有配戴防振手套卻只有 22 位(13.3%)。

關鍵字：營造業勞工、手-手臂振動、振動症候群

Evaluation of Hand-arm Vibration Exposure and Survey of Related Occupational Injury of Construction Workers in Taiwan

Hu, SM.[1]; Ho, HC.[1]; Chen, LH.[1]; Liu, YW.[1]; Huang, CJ.[2]

[1.]Dept. of Occupational Safety and Health, Chia Nan University of Pharmacy & Science.

[2.]Dept. of Environmental Engineering and Science, Chia Nan University of Pharmacy & Science.

In this research, first step we surveyed what kind and what type of hand-held power tools were operated frequently, and then gauged the vibration acceleration of these hand-held power tools according to ISO 5349/1986 and ISO 8662. Thirdly, interviewed with workers to complete the questionnaire in the field about the habit of operating power tools and their subjective symptoms.

There were 195 workers of construction industry involved in this investigation with average 39.12 years old (s.d. =9.19) and 13.48 years (s.d. =9.28) in working experience. Each worker used 2.73 kinds of different hand-held power tools. The prevalence rate of the finger tingling and pain symptom was 27.3% (45/165) in 5.88 operating years. Eight workers (the prevalence rate of 4.8%) suffered from vibration induced white finger (VWF) in 7.25 operating years. The finger tingling and pain symptom was correlated with operating time of the hand-held tool mainly($F=20.42, p<0.001$), meanwhile the workers wearing anti-vibration gloves during operating the hand-held power tools were only 22 persons (13.3%).

Keyword: Construction Workers, Hand-arm vibration, Vibration syndrome