

噪音作業勞工聽力損失危險因子之探討

A Study of Risk Factors for Occupational Noise-induced Hearing Loss..

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摘要

噪音性聽力損失是盛行率極高的職業病之一，而且聽力損失是無法恢復或治癒的；但若事先進行防範措施，確實執行勞工聽力保護計畫，噪音性聽力損失是可以預防的。本研究主要目的是要探討噪音性聽力損失之危險因子，並進一步瞭解吸菸及有機溶劑是否會影響噪音性聽力損失之發生。研究對象是來自民國 93 年 1 月至 9 月到台灣南部地區某教學醫院做特殊體檢的噪音作業勞工，以 Beltone 120 型聽力檢查器進行氣導式純音聽力測定，並以結構式問卷收集其基本資料及職業暴露等相關性資料。研究結果發現：1. 調整干擾因子之後，噪音暴露的族群罹患聽力損失的危險性比未暴露的族群高，OR 值為 1.60 (95% C.I.=1.20~2.13)；2. 調整干擾因子之後，有吸菸習慣者其罹患聽力損失的危險性比無吸菸習慣者高，OR 值為 1.28 (95% C.I.=1.00~1.71)；3. 有吸菸習慣又同時有噪音暴露者，對聽力損失之發生有相加性協同作用（協同指數為：2.40），及相乘性協同作用；4. 同時暴露於有機溶劑與噪音下對聽力損失的發生有相加性協同作用（協同指數為：1.24），及相乘性協同作用存在；5. 未來聽力保護計畫應擴大推展，並可將吸菸、有機溶劑等危險因子列入考量，以確保聽力保護計畫的周全性。

Abstract

Noise induced hearing loss (NIHL) is one of the occupational diseases with high prevalence. The more influential is that once people get NIHL, they can't be recovered and cured, but preventable. The specific aim of this study is to explore risk factors of NIHL, and to investigate the interaction effect of smoking and organic solvents exposure. A total of 975 workers who was included in this study. These workers who do the pure tone air conduction audiometry by Beltone 120 hearing inspector from January to September in 2004 in a teaching hospital at south Taiwan. A structural questionnaire for collecting the personal data and occupational exposure history were also performed. The results showed that (1) after adjusted confounding factors, the workers who exposed to noise have higher risk of hearing loss than who didn't. The odds ratio is 1.6

(95%C.I.=1.20~2.13). (2) after adjusted confounding factors, smoking workers have higher risk of hearing loss than nonsmokers. The odds ratio is 1.28 (95%C.I.=1.00~ 1.17). (3) the subjects who smoked and exposed to noise would result in additive synergy (additive synergy index is 2.40) and multiplicative synergy in hearing loss. (4) exposed to organic solvents and noise would conduce additive synergy (additive synergy index is 1.24) and multiplicative synergy in hearing loss. It is recommended that government should take smoking and organic solvents exposure into consideration as part of the "Hearing Protection Program" to diminish the possible auditory damage of workers.