

題名:Environmental distribution of arsenic in Taiwan.

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摘要:BACKGROUND: Erectile dysfunction (ED) has a profound impact on the quality of life of many men. Many risk factors are associated with ED, such as aging, sex hormone levels, hypertension, cardiovascular diseases, and diabetes mellitus. Arsenic exposure could damage peripheral vessels and increase the risk of cardiovascular disease. However, the relationship between arsenic exposure and ED has seldom been evaluated. OBJECTIVES: In this study we aimed to investigate whether exposure to arsenic enhances the risk of ED. METHODS: We recruited 177 males \geq 50 years of age through health examinations conducted in three hospitals in Taiwan. We used a questionnaire (International Index of Erectile Function-5) to measure the level of erectile function. Sex hormones, including total testosterone and sex hormone-binding globulin, were determined by radioimmunoassay. We used another standardized questionnaire to collect background and behavioral information (e.g., cigarette smoking; alcohol, tea, or coffee drinking; and physical activity). RESULTS: The prevalence of ED was greater in the arsenic-endemic area (83.3%) than in the non-arsenic-endemic area (66.7%). Subjects with arsenic exposure \geq 50 ppb had a significantly higher risk of developing ED than those with exposure \leq 50 ppb, after adjusting for age, cigarette smoking, diabetes mellitus, hypertension, and cardiovascular disease [odds ratio (OR) = 3.4]. Results also showed that the risk of developing severe ED was drastically enhanced by arsenic exposure (OR = 7.5), after adjusting for free testosterone and traditional risk factors of ED.

CONCLUSIONS: Results suggested that chronic arsenic exposure has a negative impact on erectile function.