Incidence of internal cancers and ingested inorganic arsenic - a 7-year follow-up-study in Taiwan

薛玉梅

Chiou HY;Hsueh YM;Liaw KF;Horng SF;Chiang MH;Pa YS;Lin JSN;Huang CH Chen;C.J.

摘要

Abstract

In order to elucidate the dose-response relationship between ingested inorganic arsenic and internal cancers, a total of 263 patients with blackfoot disease and 2293 healthy residents in the endemic area of arseniasis were recruited and followed up for 7 years. The information on consumption of high-arsenic artesian well water, sociodemographic characteristics, life-style and dietary habits, and personal and family history of cancers was obtained through standardized interviews. The occurrence of internal cancers among study subjects was determined through annual health examinations, home visit personal interviews, household registration data checks, and national death certification and cancer registry profile linkages. A dose-response relationship was observed between the long-term arsenic exposure from drinking artesian well water and the incidence of lung cancer, bladder cancer, and cancers of all sites combined after adjustment for age, sex, and cigarette smoking through Cox's proportional hazards regression analysis. Blackfoot disease patients had a significantly increased cancer incidence after adjustment for cumulative arsenic exposure.