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**MORTALITY IN A POPULATION HIGHLY EXPOSED TO POLYCHLORINATED BIPHENYLS AND POLYCHLORINATED DIBENZOFURANS: 30 YEARS AFTER YUCHENG ACCIDENT**

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**Objectives** In 1979, approximately 2000 victims in central Taiwan accidentally ingested rice oil contaminated with polychlorinated biphenyls/ dibenzofurans (PCBs/PCDFs). In this study, we compared mortality between the exposed subjects and their neighbourhood referents 30 years after Yucheng accident.

**Methods** We obtained age- and gender-matched referents from the 1979 neighbourhood of the exposed people. Cause-specific mortality (classified by ICD-9 codes) was compared between exposed subjects (N=1803) and their neighbourhood referents (N=5170). Age-modified indirect standardised mortality ratios (indirect-SMR) were calculated utilising the Yucheng subjects' neighbourhood referents as reference group. Total person-years of Yucheng subjects and neighbourhood referents were 48 751 and 141 774, respectively.

**Results** All-cause mortality was significantly elevated in Yucheng subjects (SMR 1.2, 95% CI 1.1 to 1.3). Among Yucheng males, SMRs for chronic liver disease and cirrhosis (2.5, 1.5 to 3.9), stomach cancer (3.5, 1.5 to 7.0) and lymphatic and haematopoietic cancer (3.0, 1.1 to 6.6) were increased. Among Yucheng females, SMRs for disease of the circulatory system (1.5, 1.0 to 2.1) and systemic lupus erythematosus were increased (5 in Yucheng females, 0 in neighbourhood referents).

**Conclusions** This is a long-term follow-up study comparing the mortality experience in people highly exposed to PCBs and PCDFs 30 years ago to that in a socio-economically comparable referent group. We found an increase in overall mortality, as well as other organ systems and some malignancies.