

男性放射線業務従事者における健診受診に関連する要因

Factors associated with the participation of male Japanese nuclear workers in medical examinations

Background

Nuclear workers undergo medical examinations once every 6 months due to health-related risks of occupational radiation exposure. Most former workers aged 40–74y should participate in medical examinations as beneficiaries of National Health Insurance. However, some workers do not undergo regular medical examinations. Job category and history of diseases were reported as factors associated with participation in medical examination among the beneficiaries.

Aim

The purpose of this study was to examine factors associated with the participation of current and former nuclear workers in medical examinations.

Materials and Methods

A self-administered questionnaire was distributed to nuclear workers. Of the responders, male radiation workers, whose necessary information was obtained, were enrolled in this study. Multivariate logistic regression analysis was used to calculate the odds ratio. The dependent variable was participation in medical examination in a year. The independent variables were the cumulative radiation dose ($<50\text{mSv}$, $50\text{mSv} \leq$), age, type of industry, job category, years of schooling, and history of diseases.

Results

Cumulative radiation dose of 50mSv or over was solely associated to less participation in medical examination in a year. This association between participation in medical examination and cumulative radiation dose was attenuated after the other factors were added to the model. The factors related to medical examination participation were age, type of industry, job category, years of schooling, and history of diseases. An increasing participation in medical examination among nuclear workers with higher cumulative radiation would contribute to reduction of their incidence of cancer or non-cancer, as medical examination plays an important role in early diagnosis.