

Thyroid Examination in Fukushima Health Management Survey: Lessons learned from ultrasound screening of young people

Fukushima nuclear accident following the Great East Japan Earthquake on March 2011 induced concerns about various health influence. Many interventions including health surveillance have been conducted as a countermeasure of complex disaster¹⁾. The level of thyroid radiation dose in Fukushima residents was much lower than that in Chernobyl, suggesting that a detectable excess of thyroid cancer due to radiation was unlikely to produce in Fukushima. However, the fear of thyroid cancer caused radiation-related anxiety among the public just after the accident. Owing to address anxiety of health impacts as a main purpose, the thyroid examination as a type of cancer screening survey was launched from October 2011 in a part of the Fukushima Health Management Survey. The thyroid examination resulted in the many cancer diagnosis, more than two hundred forty cases by the precision ultrasound screening. It is considered a potential overdiagnosis from a large reservoir of thyroid cancer that would not have been diagnosed throughout the life course without screening²⁾. The recent international recommendations are opposing to thyroid ultrasound cancer screening not only for asymptomatic adults but also asymptomatic young populations even after the nuclear disaster. The lessons learned from this thyroid examination suggested that the ultrasound mass-screening caused psychosocial confusion in addition to overdiagnosis rather than brought benefits. The significance of developing codes of conduct has recently been recognized for post-disaster research even if desired. To guarantee autonomy and the informed choice for residents in Fukushima, it is essential to change to individual monitoring approach on a voluntary and on a code of conduct basis^{3,4)}.

(References)

1) Ohtsuru, et al. *Lancet* 386: 489-97, 2015. 2) Ohtsuru, et al. *JAMA Otolaryngol Head Neck Surg* 145: 4-11, 2019. 3) Midorikawa, et al. *Nature* 579: 193, 2020. 4) Ohtsuru, et al. *J Rad Res* in press.