

■ Deaths from malignant tumors, etc. developed by the age of 20

The follow-up survey of 41,066 subjects revealed no correlation between parents' gonadal doses (0.435 Sv on average) and their children's deaths.

(Source: prepared based on Y. Yoshimoto et al.: *Am J Hum Genet* 46: 1041-1052, 1990.)

■ Incidence rate of cancer (1958 - 1997)

As a result of the follow-up survey of 40,487 subjects, development of solid tumors and blood tumors was found in 575 cases and 68 cases, respectively, but no correlation with parents' doses was observed (the survey is still underway).

(Source : prepared based on S. Izumi et al.: *Br J Cancer* 89: 1709-13, 2003.)

■ Deaths from cancer

As a result of the follow-up survey of 75,327 subjects conducted from 1946 to 2009, there were 1,246 deaths from cancer, but no correlation with parents' doses was observed.

(Source : prepared based on E. Grant et al.: *Lancet Oncol* 16: 1316-23, 2015.)

■ Prevalence rates of lifestyle-related diseases (2002 - 2006)

The clinical cross-sectional survey of approx. 12,000 subjects revealed no correlation between parents' doses and their children's prevalence rates of lifestyle-related diseases (the survey is still underway).

(Source : prepared based on S. Fujiwara et al.: *Radiat Res* 170: 451-7, 2008.)

The Radiation Effects Research Foundation has been conducting follow-up surveys to ascertain whether parents' radiation exposure increases their children's incidence or prevalence rates of lifestyle-related diseases, which are multifactorial disorders. The Foundation has so far conducted a survey of development of malignant tumors by the age of 20,<sup>1</sup> a survey of cancer,<sup>2,3</sup> and a survey of lifestyle-related diseases,<sup>4</sup> but none of them revealed specific radiation effects.

1. Y. Yoshimoto et al.: *Am J Hum Genet* 46: 1041-1052, 1990.

2. S. Izumi et al.: *Br J Cancer* 89: 1709-13, 2003.

3. E. Grant et al.: *Lancet Oncol* 16: 1316-23, 2015.

4. S. Fujiwara et al.: *Radiat Res* 170: 451-7, 2008.

Included in this reference material on February 28, 2018

Updated on March 31, 2023