FoE Japan

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Factsheet: Pediatric thyroid cancer cases in Fukushima Prefecture

Out of the 137 cases of suspected or diagnosed with malignant thyroid cancers, 23 out of the 25 people who were retested had been told that they were clear of thyroid cancer in the first round screening.

On August 31, 2015, the newest reports on pediatric thyroid cancer cases in Fukushima were made public at the 20th Oversight Committee for the Fukushima Health Management Survey. According to those reports, the number of children who were suspected of having thyroid cancer or were diagnosed with malignant cases of thyroid cancer totaled 137. Out of the 137 children, 25 of them were either suspected to have or diagnosed with thyroid cancer in the second round of check-ups, which started in 2014. Within this group of 25 children, 23 had been told that they were clear of thyroid cancer in their first round screening.

Table: Suspected and Confirmed Cases of Pediatric Thyroid Cancer

	Potential and Actual examinees	Confirmed or Suspected Cases	Confirmed post-surgery	Notes
1st Round of Screening (2011~2013)	Potential:367,685 Actual examinees: 300,476 (81.7%)	113	98	Out of 99 surgical cases, 1 benign case, 95 cases of papillary carcinoma, and 3 cases of anaplastic carcinoma
2nd Round of Screening (2014~2015)	Potential: 378,778 Actual examinees: 169,455 (44.7%)	25	6	Out of the 25 suspected or confirmed cases, 23 cases had been cleared in the previous round of check-ups. 6 confirmed cases were papillary carcinoma.
Total		138	104	

<Based on materials published on August 31st, 2015 by the Fukushima Prefectural Health Survey Committee>

The term "suspected" in this context means those who were diagnosed with thyroid cancer based on their cytodiagnosis. The term "confirmed" refers to the diagnosis after examining the cells post-surgery.

According to data from the National Cancer Center, thyroid cancer in the late teen-age bracket is found in 0.9 of every 100,000 people. Currently, this overwhelming and disproportionately large number of confirmed cases of pediatric cancer in Fukushima is said to be a result of the "screening effect". This narrative claims that cases of thyroid cancer, which otherwise would have been overlooked or undetected, are being discovered at a faster pace due to the echocardiography tests widely conducted for children in Fukushima, and suggests that the large numbers of confirmed cases do not point to a real increase in thyroid cancer events. However, this narrative contradicts the reality of the 23 children who were diagnosed with thyroid cancer in their second screening after being cleared in the first round screening.

Increasing cases of lymph node-metastasis and spread of cancer to parts of the body outside of the thyroid gland. Collapse of the "over-diagnosis" narrative.

Even after thyroid cancers were discovered in children after the second round of examinations, the government still insisted that these cases had "little relation to the nuclear accident." They eventually proceeded to use the "over-diagnosis" narrative that some specialists advocated, and refused to change policies regarding the children and accident victims.

The term "over-diagnosis" in this context basically means "diagnosing one with cancers that do not threaten their lives." In other words, diagnosing someone with thyroid cancer and going through the process of surgery even though it is not a serious threat.

However, on August 31st, Fukushima Medical University's, Dr. Shinichi Suzuki, published a paper based on the 96 children who underwent surgery. **He found that there were 72 cases of lymph node metastasis, and 92% of the cases fell into the categories of lymph node metastasis, infiltration of the cancer to parts of the body outside of the thyroid, or remote metastasis.** A member of the Prefectural Health Survey Committee, Mr. Kazuo Shimizu, has written that "the Medical University's surgeries have been carefully selected." Already, the notion of "over-diagnosis" has collapsed.

More information can be found here
(Japanese only): https://www.pref.fukushima.lg.jp/uploaded/attachment/129308.pdf
(English translation): http://fukushimavoice-eng2.blogspot.jp/

Dr. Shinichi Suzuki had previously has been in charge of thyroid cancer examinations since the start. In response to criticisms of "over-diagnosis," he has stated that patients who undergo surgeries are those who suffer from "clinically hoarse voices, and most patients have lymph node metastasis," and "cannot be left without medical care."

Comparing the First and Second Rounds Screening

Fukushima Medical University has categorized the first round examinations that occurred from October 2011 through April 2014, as the "initial screening," and use the results as a way to understand the medical atmosphere prior to the nuclear accident. From April 2014 onwards, specialists use the second round of examinations, categorized as the "real screening," to understand the medical situation since the nuclear accident. Let us compare the two

1st Round Screening	2nd Round Screening
• Potential examinees: Children aged 0-18 years as of March 11, 2011, who were citizens of Fukushima prefecture: 367,685 children. • Actual examinees: 300,476 children (81.7%) • Number of children suspected: 113 • Male-to-female ratio: 38:75 • Average age: 17.3±2.7 years (range 8-22 years old), at the time of the disaster 14.8±2.6 years (range 6-18	• Potential examinees: In addition to those who were applicable for the 1st round screening, the 2nd round was opened up to children (citizens of Fukushima prefecture) who were born on or before April 1st 2012. 378,778 children. • Actual examinees: 169,455 (44.7%) Among children applicable for Screening in 2014: • Number of children suspected: 25

years old) • Average diameter of tumor: 14.2 ±7.8 mm (range 5.1-45.0 mm) Graph shows ages of 113 examinees suspected of having thyroid cancer at the time of diagnosis	• Male-to-female ratio: 11:14 • Average age: 17.0±3.2 years (range 10-22 years old), at the time of the disaster 13.2±3.2 years (range 6-18 years old) • Average diameter of tumor: 9.4± 3.4 mm (range 5.3-17.4 mm) Graph shows ages of 25 examinees suspected of having thyroid cancer at the time of diagnosis

<Based on materials published on August 31, 2015 by the Fukushima Prefectural Health Survey Committee>

It is evident that the proportion of males who participated in the 2nd round of examinations was much higher than the 1st round, and the age range is much bigger in the second round as well.

The decrease in ratio of examinees ~ The barriers of risk communication

The biggest point that we worry about is the big decrease in the ratio of examinees. While the 1st round screening had an examinee rate of 81.7%, the 2nd round screening only recorded 44.7%.

In addition to the sentiment of not wanting to think about health risks due to radiation, the government's campaign of denying the danger of radiation by advocating ideas of "radiation is not a big deal," and "being worried about radiation has a bigger negative impact on your health" is clearly working.

Instead of investing money into risk communication, they should be analyzing individual cases, increasing pediatric thyroid cancer screening to also cover other prefectures outside of Fukushima, and researching other diseases that weaken the thyroid as well as other diseases in general that come from exposure to radiation.

(Kanna Mitsuta)