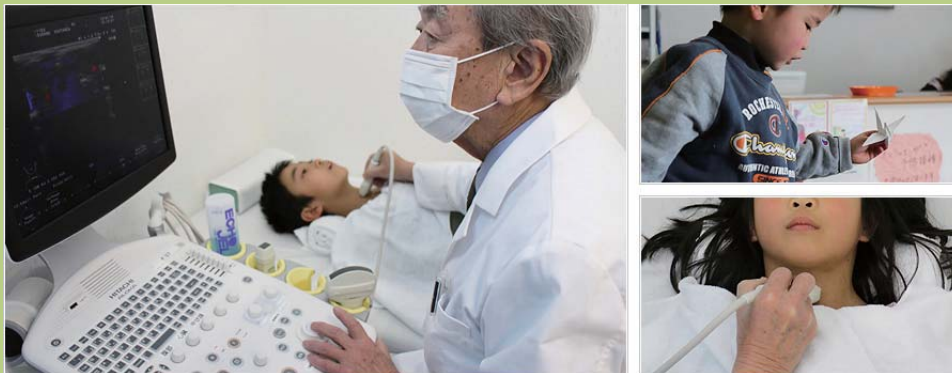


Fukushima Collaborative Clinic Monthly Bulletin

Issue 1

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Findings from FHMS's and FCC's Thyroid Ultrasound Examinations



Findings from FHMS's and FCC's Thyroid Ultrasound Examinations

MATSUE Hiroto

Director of the Fukushima Collaborative Clinic

One year has passed since we opened the Fukushima Collaborative Clinic (FCC) on December 1, 2012, in order to squarely confront people's exposure to radiation as a result of the Fukushima nuclear plant disaster and to save their health and life.

While leukemia, thyroid, breast and other cancers have been usually focused upon as health effects of radiation, it is important to pay much more attention to non-cancer diseases. A great number of such diseases were reported after the Chernobyl— genetic alterations, blood and immune abnormality, burabura disease (chronic syndrome with dizziness, lassitude and other indefinite complaints found among

A-bomb survivors in Hiroshima and Nagasaki), premature aging and so on. Therefore, such patients are expected to visit the FCC. So far, however, 80 % out of our ca. 800 visitors are patients whose concern is about thyroid cancer. (see Table 1, Numbers of patients sorted according to the exposed dose)

The FCC takes at least 15 minutes for the ultrasound examination of any organ including thyroid. Careful examination makes it possible to detect lesser abnormalities and make an appropriate diagnosis; many minute cysts, in fact, were found in the FCC's examination.

Table 1

Summary of Patient Visits to Clinic

(Dec. 1, 2012 - Oct. 31, 2013)

- I) Total number of patient visits = 742
Number of patients tested Ultrasound Thyroid examination = 647
- II) Number of patient visits classified by zone of radiation levels ^{*1}
 - Zone 1 (over 5.2 μ Sv/h) = 2
 - Zone 2 (5.2—2.0 μ Sv/h) = 103
 - Zone 3 (2.0—0.66 μ Sv/h) = 411
 - Zone 4 (0.66—0.13 μ Sv/h) = 60

^{*1} Zones until April 29, 2011, excluding those who have not filled the questionnaire on his or her residence at the time of the accident)

Results of FCC's thyroid

In the FCC's ultrasound thyroid examination, we found 244 cases of abnormalities (56%)—228 cases of cyst (52%), 7 cases of nodule and 9 other cases—out of 440 our total thyroid patients, all minors under 18. In 98 cases out of 228 cyst cases had a countless minute cysts smaller than 5 mm. These constitute 22 % of overall cases with abnormalities and 43 % of cases with cysts. (see Table 2)

As ultrasound imagery portrays countless minute cysts like a honeycomb, we call it "honeycomb cysts." (see Figures 1, 2, and 3)

Minute cysts are themselves neither tumors nor cancers. However, existence of countless minute cysts scattered over the thyroid deteriorates thyroid's function and then probably incur a thyroid cancer.

We also conduct thyroid hormone examinations and blood biochemical examinations, on which we will report on a later issue of our Bulletin.

It is not yet known the reason why such cysts occur; there is no detailed report on this subject. It is also unknown whether these are specific phenomena among minors under 18 in Fukushima or not. Therefore, we tried to find out the correlation between the frequency of such cysts and patients' doses of radiation exposure, sorting it according to the radiation level of their hometowns in Fukushima Prefecture. (see Table 2)

We have gathered 19 such cases from areas with 5 to 20 mSv/year radiation levels. 72 cases from 1 to 5 mSv areas. 9 cases from 0.5 to 1 mSv areas. It suggests a correlation surely exists between such abnormalities and radiation exposure.

Table 2

Results of Ultrasound Thyroid Gland Examination

(Dec. 1, 2012 - Oct. 31, 2013)

- I) Total number of patients 18 or younger examined = 440 cases
 - No Abnormalities = 196 cases (44 %)
 - Abnormal findings = 244 cases (56%)
 - Nodules = 7 cases
 - Cysts = 228 cases
 - Countless minute cysts = 98 cases
 - Countless minute cysts/total cases = 22%
 - Countless minute cysts/total cysts = 43%
 - In-homogeneities = 9 cases
- II) Countless minute cysts classified by zone of radiation levels
 - 5.2—2.0 μ Sv/h = 19 cases
 - 2.0—0.66 μ Sv/h = 72 cases
 - 0.66—0.13 μ Sv/h = 9 cases

Figure 1 Follicular Adenoma

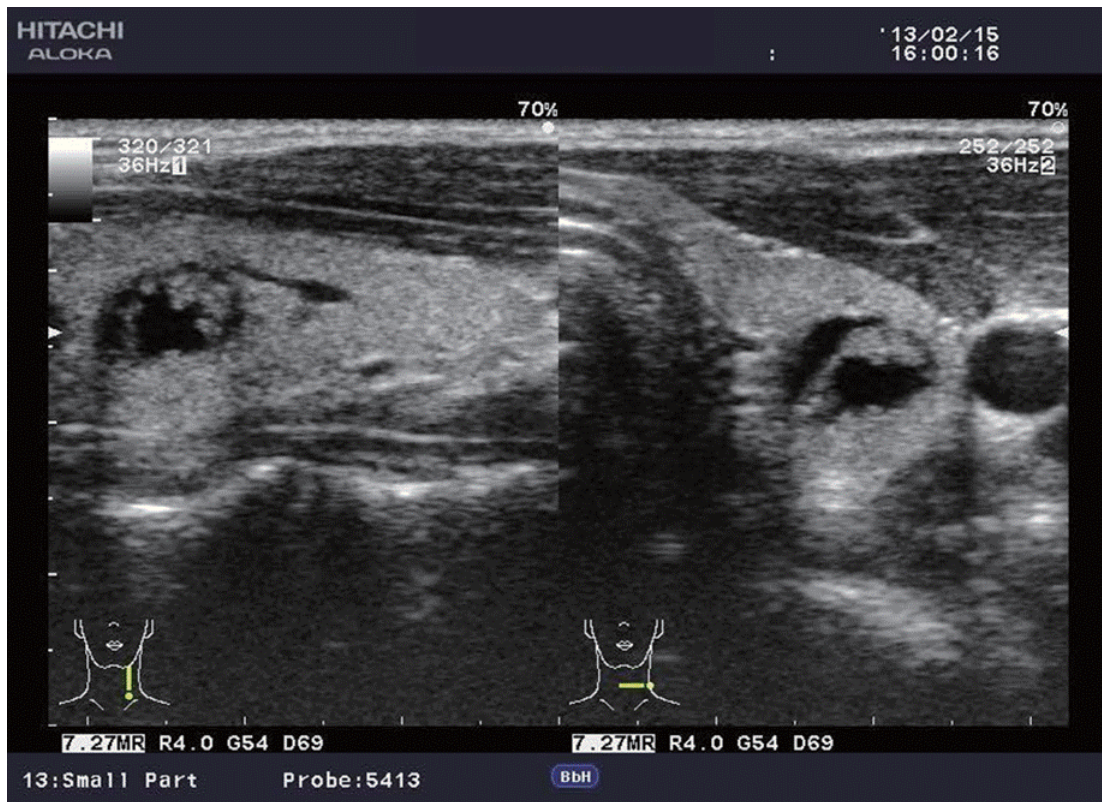


Figure 2 Honeycombed

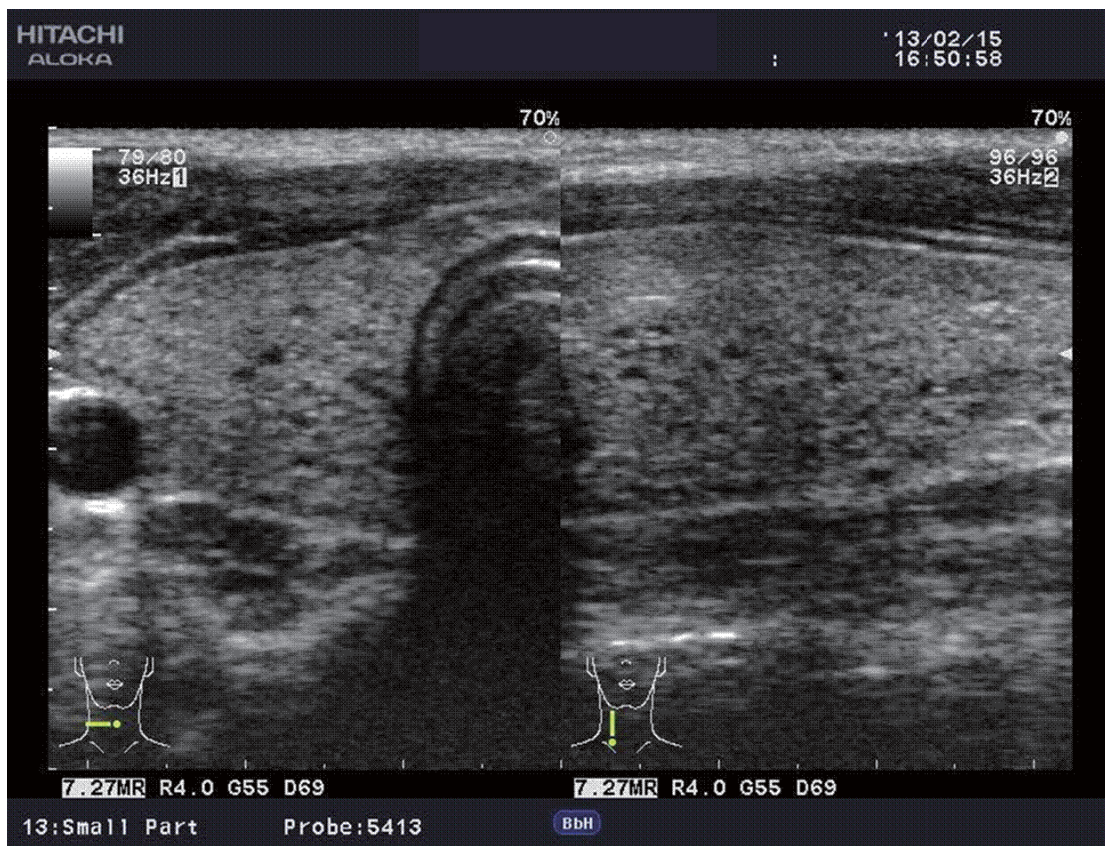
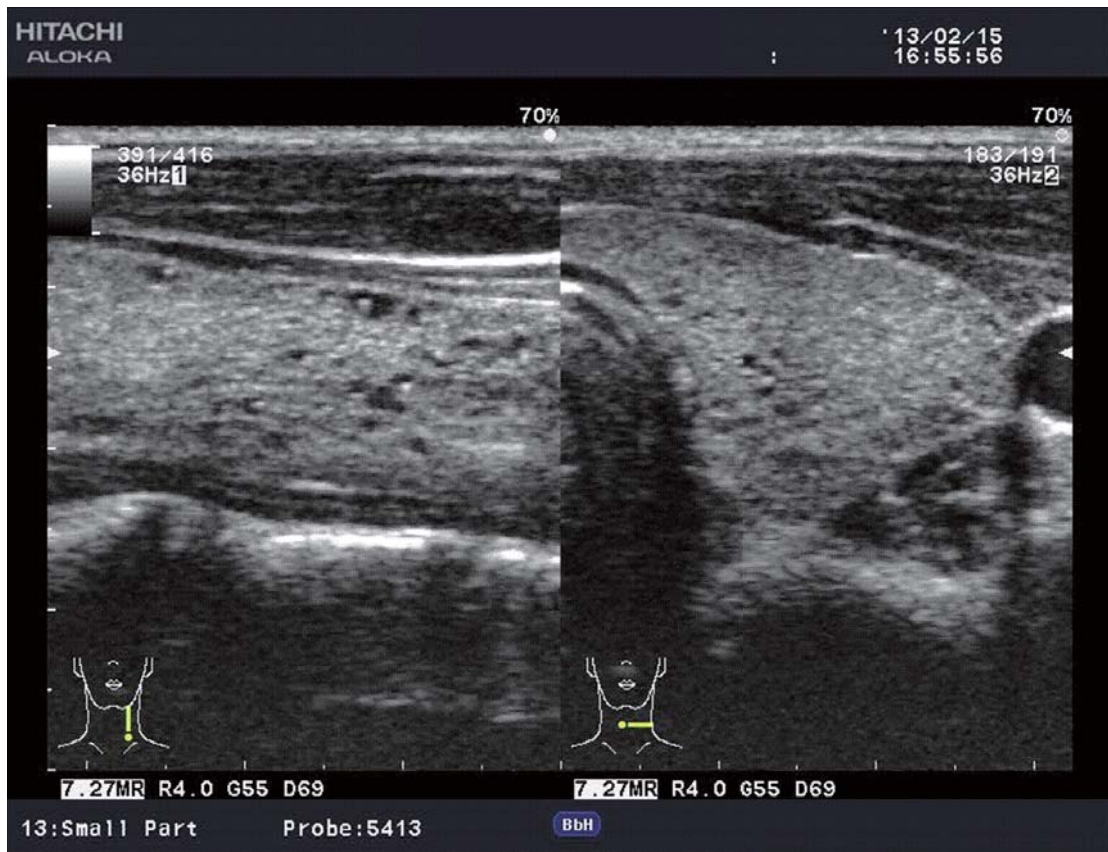


Figure 3



The second FHMS's thyroid examination

The Fukushima Medical University published the results of the second thyroid examination as of September 30 this year at the Oversight Committee for Fukushima Health Management Survey (FHMS). According to the report, they found 59 cases with malignant abnormalities and 26 cases with confirmed diagnosis of cancer.

The Chair of the Committee, Hokuto Hoshi, stated at news conference, "We understand that the frequency of thyroid cancer has not increased as an effect of the nuclear plant accident until today."

This is a continuation of their blunt denial of relationship between the abnormalities and the radiation exposure from the nuclear plant accident.

Their argument is that the thyroid cancer cannot occur within 2 years after the Fukushima nuclear accident, citing Chernobyl's data according which thyroid cancers first occurred 5 years after the accident.

However, the ultrasound device in 1986 had a different architecture from the present one and much lower resolution. It might have been, therefore, very difficult to find early stage thyroid cancers at that time. Such diagnosis has become possible since the days around 1991 when high-resolution ultrasound devices began to be used. It is also well-known that the gathered data about the health effects just after the Chernobyl accident is quite insufficient

because of the chaotic situation and concealment of the accident by the USSR government thereafter.

The Committee also argues that high-resolution ultrasound devices have made the FHMS's discovery of many thyroid cancers possible. If so, how can it be explained the fact that there had been no year with over tens of child thyroid cancers in Fukushima Prefecture before the nuclear plant accident happened? Professor Shin'ichi Suzuki at the Fukushima Medical University (FMU) previously said at his public lecture, "The frequency of child thyroid cancer is 1 in 1,000,000." The FHMS's examination results show 1.15 in 10,000.

If the normal rate of the child thyroid cancer as cited above is correct, it must be stated that the rate in Fukushima today is extraordinarily high.

FMU's Judgment on Examination Results

The judgment made by Fukushima Medical University (FMU) on the results is also problematic. The university determined to conduct secondary examination—extensive testing—for those in categories* B and C, but as for those in category A2, it says, “There is no need for secondary examination”.

* Results are classified into four assessment categories according to the presence or absence of nodules and/or cysts and their sizes: A1 (no nodules or cysts found), A2 (nodules 5.0 mm or smaller or cysts 20.0 mm or smaller), B (nodules 5.1 mm or larger or cysts 20.1 mm or larger) and C (requiring immediate secondary examination).

As the smallest case of the thyroid cancer that had been performed surgery was 5.2 mm, it is strongly suspected that there could be more cases of thyroid cancer that are 5.0 mm or smaller. Those in A2 are precluded possibilities of getting extensive testing. It means that the thyroid cancer cases of 5.0 mm or smaller are completely overlooked. It is really a serious matter.

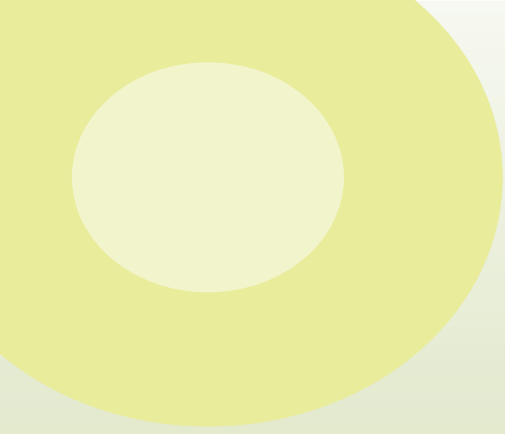
There are lots of such dubious points about the ultrasound thyroid examination of Fukushima Prefectural Government. “Detect any abnormality of broadest possibilities in order to find any early stage cancer” is one of the general principles of cancer screening, but the government ignores this principle. Besides,

thyroid cancer is only the tip of iceberg. Radiation penetrates into every organ of our body and could cause radiation sickness. And yet the government makes no further attempt to deal with it.

We cannot help thinking that Fukushima Prefectural Government and the FMU are not taking into serious consideration the most important objective: to save the lives and protect the health of Fukushima people. It is quite legitimate for the parents who are concerned about thyroid cancer to harbor a strong distrust of the government and the university.

Our medical care of less than a year's performance has clearly revealed us these facts and realities.

Fukushima Collaborative Clinic will diligently persist in making efforts to provide medical care to respond to the expectations of Fukushima people and scrutinize the actual situation of radiation sickness.



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