

WHITE HOUSE REPORT

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May 5, 1966

BIOLOGY AND MEDICINE

Thyroid Disease in the Marshallese Exposed to Fallout

In the last information reported on this subject, October 20, 1965, it was noted that a cumulative total of 11 instances of nodular thyroid glands had been found in the 69 surviving Marshallese who had been exposed to fallout from the Bikini Test of March 1, 1954, while on Rongelap and Ailingnae. All but one of these cases were in young people who were less than 10 years old at the time of the incident. The single exception was in a 41-year old woman (approximately 30 at the time of the exposure) who was found to have a carcinoma of the thyroid gland when she was operated on.

Dr. Robert A. Conrad of the Medical Department, Brookhaven National Laboratory, and leader of the annual, or more often, medical surveys of these people, has just returned from the latest survey of February-March 1966. He reports that an additional five cases of nodular thyroids have been diagnosed in this group. The present cumulative incidence is shown in the table.

Age at Exposure	Number Exposed	Total Incidence of Nodules Through March 1966	
		Number	Percent
1-5	16	9	56
6-10	9	4	44
11-15	7	0	-
16-20	5	0	-
over 20	32	3	9
	69	16	about 25

Fifty-five of the 69 persons were on Rongelap Island and received estimated

whole body doses of 175 roentgens (R) plus possible doses of 700 to 1400 rem to
their thyroids from radioiodine. The remaining 14 were visiting on Ailinginae, a

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nearby island, and received whole body exposures estimated at 69 R plus less certain, but probably smaller thyroid doses. None of the six children (1-10 years of age) who were with the group on Ailingnae has shown nodules, but one of the three adults shown in the table as having nodules was on Ailingnae.

The only instance of cancer of the thyroid was seen in a Rongelap woman who was approximately 30 years of age when exposed. The nodular condition seen in the young people is not a cancerous process, although cancers of the thyroid often grow in nodular fashion.

In August 1965 nearly all of these people were placed on a synthetic thyroid hormone, tetraiodothyronine, on the basis that such therapy would modify the incidence and/or course of the nodular process. It appears to have been partially effective but it is still too soon to be definite.

Forty children of the same age grouping who were on Utirik Island and received 14 R whole body plus proportionately smaller thyroid exposures also were examined. They showed no signs of thyroid nodules or thyroid disease.

In addition, 194 Marshallese now living on these islands were examined; three instances of nodules were found, all among people more than 47 years of age.

Five of the Marshallese with nodular thyroids will be brought to Brookhaven National Laboratory this month for further diagnostic study and possible surgery. One is a 46-year-old woman; the others are girls, ages 13, 13, 13, and 20. They will be accompanied by the Rongelap school teacher who will act as an interpreter. The treatment and travel of these six persons has been developed with the cooperation of the Honorable Wilfred Goding, High Commissioner, Trust Territory of the Pacific Islands.

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