



UNITED STATES
 ATOMIC ENERGY COMMISSION
 WASHINGTON, D.C. 20545

APR 20 1971

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THRU: *for* General Manager *SR*

CURRENT MEDICAL STATUS OF THE MARSHALLESE EXPOSED TO FALLOUT FROM THE MARCH 1, 1954, TEST ON BIKINI BY DR. ROBERT A. CONARD, MEDICAL DEPARTMENT, BROOKHAVEN NATIONAL LABORATORY

Dr. Conard conducted his annual medical survey of the exposed and non-exposed Marshallese between February 20 and March 20, 1971. He visited Rongelap, Utirik, Ebeye and Majuro Islands (Atolls).

He reports that no new thyroid lesions were found in the exposed Rongelap people. One 35-year-old woman in the low exposure (14 rads) group on Utirik developed a slight enlargement of one lobe of the thyroid that will be watched. A 32-year-old unexposed control Rongelap woman living on Ebeye developed a nodular thyroid during the year for which surgery was recommended at the Majuro Hospital.

The current status may be updated as follows:

I. Young Rongelapese exposed to fallout March 1, 1954, when they were 1 to 8 years of age. (Estimated dose: 175 rads external gamma plus 600 to 1400 rem internal irradiation.)

Total - 19

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|--|---------|
| 1. Currently normal by clinical and biochemical tests. (There may be a slight unevenness of the gland in one patient.) | 2 (11%) |
| 2. Currently hypothyroid with minimal nodularity. Responding satisfactorily to oral thyroid hormone therapy. | 3 (16%) |

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 BY *Wilbur A. Hansen* DATE *5-6-81*

3. Have undergone surgery in the U. S. prior to 1969 because of nodular thyroid disease; histologic diagnosis of adenomatous goiter and Huerthle cell tumor. Responding satisfactorily to oral thyroid hormone therapy with one exception: This patient shows some enlargement of the remnant of thyroid left from a partial thyroidectomy in 1964; as she has not followed her post-operative thyroid hormone regimen, there is question as to whether she should have further surgery. 11 (58%)
4. Young people operated on for thyroid disease during August 1969 and recovered. Diagnoses: Primary benign adenomatous goiter in two and papillary adenoma of serious grade malignancy in one. 3 (16%)

(None of six Ailinginae children exposed to an estimated external dose of 70 rads have shown thyroid dysfunction.)

II. Surviving adult Rongelapese exposed to fallout. (Estimated dose: 175 rads external plus 160 rem internal irradiation.)

Total - 34

1. Papillary carcinoma removed surgically at age 41. No recurrence. Taking oral thyroid hormone therapy. 1
2. Small nodule at age 40 which disappeared under oral thyroid hormone therapy. 1
3. This patient operated on in 1969 for removal of an invasive adenoma; has recovered satisfactorily. 1

(All the above in I and II who underwent surgery appear to be in good health without evidence of recurrence.)

III. Surviving adult Ailinginae people exposed to fallout. (Estimated dose: 70 rads external gamma irradiation.)

Total - 8

1. Adenomatous goiter removed at age 45; recovered and was on thyroid therapy. Died of influenza in 1968.

- IV. Surviving adult Utirik people exposed to fallout. (Estimated dose: 14 rads external gamma plus 15 rem internal irradiation.)

Total - 120

1. One person developed a nodular thyroid gland and underwent surgery in 1969. As the tissue resembled a follicular adenoma in frozen section, a total thyroidectomy was performed; histologic sections confirmed the diagnosis and upgraded the degree of malignancy. She has recovered satisfactorily.
2. One person with slight enlargement of one lobe of the thyroid to be treated conservatively and observed.

One case of nodular thyroid has been found in a non-exposed Rongelap woman living on Ebeye. Thyroid surgery has been recommended for this patient at Majuro Hospital. No other instances of thyroid abnormalities have been found in the control populations living on Utirik, Majuro or Ebeye.

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It appears that the exposed populations have stabilized so far as the thyroid reactions are concerned. Since the delayed reactions by the thyroid are a possibility, Dr. Conard proposes that this population continue to be kept under observation.

Dr. Conard notes that the Bikini people now living on Kili are putting increasing pressure on the Trust Territory for return to their Atoll before the restoration is complete and the land can support a population. This movement may cause the Trust Territory to ask that all radiologic and safety activities be accelerated so that decisions can be made as to construction of homes, cisterns, etc., ahead of schedule.

A low key public announcement of the above observations is being considered by the Brookhaven public relations office.

The same information is being forwarded to Mr. Bauser for the information of the Joint Committee on Atomic Energy.

N. D. Bunker, M.D.

John R. Fetter
Director
Division of Biology and Medicine