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ATOMIC ENERGY COMMISSION  
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*Bikini*

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CURRENT MEDICAL FINDINGS ON MARSHALLESE BROUGHT TO BROOKHAVEN

This is a follow-up of our memorandum of May 28, 1969, concerning the medical status of the Marshallese exposed to fallout on Rongelap following the March 1, 1954, shot at Bikini Atoll.

The four Rongelapese referred to in that memorandum received their pre-operative observation at the Medical Center of Brookhaven National Laboratory week before last and then transferred to the Cleveland Metropolitan General Hospital for surgery by Dr. Brown Dobyns.

Two of the three Rongelapese, who were less than ten years of age at the time of exposure to an estimated 175 rads of gamma and 600 to 1400 rem of internal beta radiation, were found to have the primary benign adenomatous goiter like that seen in most Rongelapese of this group. They were treated by subtotal thyroidectomy and are recovering satisfactorily.

The third Rongelap native, a girl now 21-22 years of age, was found to have a papillary adenoma with invasion of the lymph nodes of the left side of the neck by neoplastic cells. Since the frozen sections and invasiveness suggested a serious degree of malignancy a radical dissection of the left side of the neck plus complete thyroidectomy were carried out. The patient is recovering with a minor degree of hypoparathyroidism.

The fourth Rongelapese who was exposed at the age of 22 years and hence is estimated to have received only 160 rem of internal beta plus 175 rads of gamma radiation, was found to have an invasive adenoma which had involved the capsule of the thyroid gland.

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BY *Joe Deary* DATE *5/22/81*

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Since the lymph nodes were free of neoplastic cells, only a total thyroidectomy was performed. This patient is recovering satisfactorily with minimal signs of hypoparathyroidism.

A woman, who was exposed on the Island of Utirik to an estimated 14 rads of gamma plus 15 rem of beta irradiation at the age of 22, was brought to Brookhaven with the Rongelapese when she was found to have developed a nodular enlargement of the thyroid. As the tissue appeared malignant in frozen sections, a total thyroidectomy was performed and the patient is recovering satisfactorily. This is the first case of thyroid disease to appear among those who were exposed to the lower doses on Utirik. This single case suggests that closer medical supervision be provided the Utirik people. Dr. Conard proposes visiting Utirik during his mid-winter survey of the Marshallese.

The diagnoses above are subject to modification depending on histologic examination of tissue sections by pathologists. If the diagnoses are changed a further report will be made.

The Public Relations Office of Brookhaven plans a public statement when the diagnoses are confirmed.

*John R. Totter*  
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