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Authors: COSGROVE, G. E., DIGREGORIO, D., and DUNAWAY, P. B.

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AN EARLY UNILATERAL THYMIC LYMPHOMA IN A POSTIRRADIATED WHITE-FOOTED MOUSE, *Peromyscus leucopus**

G. E. COSGROVE, D. DIGREGORIO¹ and P. B. DUNAWAY,² Biology Division and Ecological Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37830, U.S.A.

Abstract: An early unilateral thymic lymphoma was found in one of 12 white-footed mice, *Peromyscus leucopus*, 7 months after 950 rads of whole-body irradiation.

Thymic lymphoma occurs frequently in some strains of laboratory mice as a delayed effect of ionizing irradiation exposure. It is rarely encountered in other species of animals,³ and has not been reported in the white-footed mouse, *Peromyscus leucopus*. A histological study of the organs of 12 white-footed mice was made 7 months after a whole-body dose of 950 rads of ⁶⁰Co gamma irradiation. The radiation was administered at a dose rate of 6.5 rad/sec in a GammaCell 200 (Atomic Energy of Canada, Ltd.) to young adult white-footed mice born and raised in the laboratory. The mice were kept under

standard colony conditions and used in a fertility experiment involving caging of one female with one male.¹ Histologically, restoration of hemopoietic organs was seemingly complete, except that the paired thymuses of all were still atrophic (Fig. 1). In one white-footed mouse with a developing unilateral thymic lymphoma, one thymus was atrophic and the other was markedly enlarged. This thymus showed a massive deposition of cortical lymphocytic cells, with some invasion through the capsule but no other local or distant extension (Fig. 2). The only other lesion in this female was radiation-induced ovarian atrophy.

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¹ Present address: Oak Ridge City Schools, Oak Ridge, Tennessee.

² Present address: U.S.A.E.C., Nevada Operations Office, Las Vegas, Nevada.

Address correspondence to: Dr. G. E. Cosgrove, Biology Division, Oak Ridge National Laboratory, Post Office Box Y, Oak Ridge, Tennessee 37830.

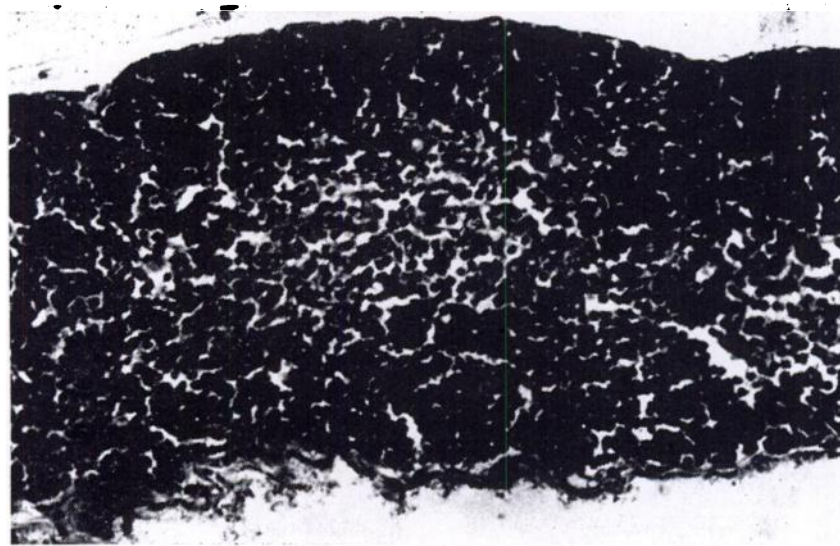


FIGURE 1. Thymic atrophy in a female white-footed mouse 7 months after 950 rad whole-body irradiation. The entire width of the thymus is shown. X 125.



FIGURE 2. Thymic lymphoma in one thymus of a female white-footed mouse. Only $\frac{1}{8}$ of the width of the thymus is shown. X 125.

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