

SUMMARY FACTSHEET HUMAN EXPERIMENTATION - SFS5.003

Project Category: Therapy with High-Energy Electrons

Funding Source(s): AEC

Institution(s): Argonne Cancer Research Hospital

Principal Investigator(s): H. L. Griem
J. W. J. Carpenter
L. S. Skaggs
L. H. Lanzl

Objective(s) of Project: To use high-energy electrons from a scanning-beam linear accelerator in tumor treatment, alone and with other treatment modalities

Short Description: Starting in 1959, ACRH scientists developed a unique instrument for electron-beam therapy combining a linear accelerator of the Standord type with a beam-scanning device. This unit was constructed for investigation of the clinical advantages of electron-beam therapy. The linear accelerator and pencil beam scanning system were used in the treatment of different forms of cancer beginning in 1959. The malignant growths treated included head and neck cancer, chest tumors, mycosis fungoides, skin cancer, carcinoma of the urinary bladder, and others. By 1969, more than 500 patients had been irradiated with the electron beam, and a remarkable feature was the lack of a skin reaction in the patients.

Follow-up Data: The linear accelerator was used successfully for treatment of patients with mycosis fungoides. The high doses of electrons to the skin which became possible with this unit led to eradication of these difficult lesions, and in 1970, Dr. Griem reported very few recurrences up to 5 years after treatment in combination with Van de Graaff x-rays.

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FACTSHEET HUMAN EXPERIMENTATION - 185 (SFS6.001)

Project Name: Therapy with High-Energy Electrons

Date Started: 1959
Date Terminated: 1970s

Institution:
Funding Source(s): AEC

Identification: ACRH, FMI
Project Duration:
Principal Investigator(s): M.L. Griem, J.W.J. Carpender, L.S. Skaggs, L.H. Lanzl
Responsible Government Official(s): Charles L. Dunham, M.D.
John R. Totter, Ph.D.

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Follow-up Data:

References: Carpender, J.W.J., Skaggs, L.S., Lanzl, L.H., Griem, J.L. Radiation therapy with high-energy electrons using pencil beam scanning. Amer. J. Roentgenol., Rad. Ther. & Nucl. Med. 90:221, 1963.

Griem, M.L., Tokars, R.P., Petras, V., et al. Combined therapy for patients with mycosis fungoides. Cancer Treatment Reports 63:655, 1979.

Attachment(s): 1067044

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