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The effect of Total Body Irradiation on Immunologic Tolerance of Bone Marrow and Homografts of Other Living Tissue

Location:
Baylor University College of Medicine
Texas Medical Center
Houston, Texas.
approximately 1953 - 1964.

Researchers:
Vincent P. Collins, M.D., Baylor University, Principal Investigator
R. Kenneth Loeffler, M.D., Baylor University

Organization:
This research was conducted by the Baylor University College of Medicine. The work was initially supported under Armed Forces Special Weapons Project (AFSWP) contract DA-49-007-MD-428 and then supported by the Defense Atomic Support Agency (DASA) contract DA-49-146-XZ-032.

Subjects:
The subjects were patients at the Texas Medical Center. The majority had generalized neoplastic conditions. There were 112 patients treated in the study. Exposures ranged from 25r-250r in 1 day to 25r-545r over periods of time from 4 days to 3.5 years.

Purpose:
The goal of treatment by total body irradiations for patients with disseminated cancer is relief of symptoms. Despite the fact that many patients were approaching the terminal stage when referred for treatment, therapeutic response was evident in many by decrease in size of nodes, relief of impending obstruction and by decreased narcotic requirements subsequent to relief of pain. In some instances, response was dramatic; a few completely bedridden patients became ambulatory and several experienced long term remissions. Among the 112 patients there were more than 30 different types of cancer; since total body irradiation was given only for generalized disease, a survival of one year or even temporary remission was gratifying. Extensive data from clinical observations and laboratory tests were reported in series of reports to AFSWP and DASA throughout the period of the study.

Value to DoD: In his summary report, Dr. Collins included a set of tables predicting the effect of total body irradiation based on clinical observations. He also included detailed and extensive tables of biochemical effects and hematological data. All of this can and probaly was used to support predictive analysis of radiation effects on troops in a wartime environment.

Records:
Currently identified records are the reports submitted to AFSWP and DASA by the University of Baylor. The titles and dates

of the reports indicate that certain reports are missing; the missing reports are being sought for review.

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