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QUARTERLY REPORT
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STUDY OF THE POST-IRRADIATION SYNDROME IN HUMANS

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Investigator: James J. Nickson, M.D., Head, Section of Experimental Radiation, Division of Experimental Pathology, Member, Sloan-Kettering Institute; Chief, Department of Radiation Therapy, Memorial Center

Address : Sloan-Kettering Institute for Cancer Research
 410 East 68th Street, New York 21, New York

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File: DA-49-007-MD-910 Sloan-Kettering Inst. For Cancer
 Dr. James J. Nickson

During the past trimester two patients have been irradiated. One patient with multiple myeloma was given 100 r total body radiation as measured mid-plane-in tissue. The patient showed little deviation from control values in hematologic status or in creatinine. Follow-up was short because of necessity for patient to return to his home in Idaho. Subsequent letters from the family physician have not indicated any hematologic dysfunction. There was no measurable response in any of the multiple subcutaneous tumors.

The second patient with disseminated carcinoma of cervix post-irradiation, recurrent, was given 100 r total body mid-plane. This patient has since shown marked depression of platelet count, the minimal value being 9000. On the 20th to 34th day bleeding time was prolonged to a maximal value of 18 minutes. It is of interest that even though the platelet count was depressed, the bleeding time returned to normal by the 34th day. A return to normal was quite abrupt. The passing in 4 days from 18 minutes to 24 minutes. The return of the bleeding time to normal in the face of continued depression of the platelet count strongly points to a non-platelet mechanism of importance in determining bleeding time. Petechiae, only transiently observed, in this patient a crop being seen as of bleeding time, initially became prolonged; no others occurred, even though the bleeding time remained prolonged.

Other studies in this patient include properdin level estimates, creatinine excretion determinations, and a detailed study of factors relating to bleeding and clotting times; the latter done in cooperation with Dr. M. Zucker. These studies have not yet been analyzed.

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DR. James J. Nickson

Abstract

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Two patients, one with multiple myeloma and a second with disseminated carcinoma of the cervix post-irradiation were given 100 r total body radiation.

The first patient showed little deviation from control values in the hemotologic status or in creatinine. The second patient showed marked depression of platelet count but bleeding time returned to normal by the 34th day.

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Sloan-Kettering Institute for
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