

SMPW

30 October 1968

Completion of Contract AF61(052)-816
St. Louis Hospital, Paris, France (Prof Mathe)

SMGS (Miss Reynolds)

The following information is submitted for closing out DD Form 1498:

Results:

This research was conducted to investigate in mice and in human leukemic patients the secondary syndrome and its mechanism in order to develop preventive methodologies. During the study, 24 leukemic patients were administered bone marrow transfusion following irradiation exposure. In 17 cases a viable marrow graft was demonstrated and 7 cases did not show graft survival. Although eventually all the patients died from leukemia and associated bacteriological or viral complications, the research did demonstrate the effects on the use of immunosuppressive drugs. In another group of 33 patients, white cell transfusions were utilized and the effect of different conditioning procedures of the cells studied. In mice, a large number of marrow transfusions were accomplished and the results of various treatments, that is, incubation at 37°, use of tissue antigens, use of immunosuppressive chemicals and so forth, were tested.

Forecasted Use:

Although definitive procedures have not yet been established to effect a homologous bone marrow graft without the resulting secondary syndrome, considerable advancement and information has been obtained for future research in this program. In addition to a procedure for therapy against radiation injury, these findings also have definite applications in the field of organ transplantation.

Publications:

Final scientific report is to be published in the open literature by the Principal Investigator. Other publications include:

1. Mathe, G., and J. L. Amiel. Comparison of the radiosensitivity of immunologically competent cells participating in graft-versus-host reaction before and after contact with the antigen. International Journal of Radiation Biology, 10:107-110 (1966).

2. Mathe, G., et al. Different aspects of the secondary syndrome complicating allogeneic bone marrow grafts or leukocyte transfusions in patients with malignant hemopathies. Europ. J. Cancer, 1:75-113 (1965).

3. Schwarzenberg, L., G. Mathe, et al. White blood cell transfusions. Israel J. of Medical Sciences, 1:925-956 (1965).

SIGNED

DONALD R. ANDERSON, Ph.D.
Contract Monitor

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