

JSR

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William R. Albers, M.D.
Medical Director
Office of Deputy Asst. Secretary
Safety, Health & Quality Assurance
U. S. Department of Energy
Washington, DC 20545

Dear Bill:

As you have heard from Bill Burr, Bob Ricks and I received a request from the Brazilian government through IAEA and WHO, and finally DOE, to go to Rio and provide medical and radiobiological advice to the medical staff at the Brazilian Naval Hospital, Marcilio Dias. Ten of the 42 persons who had been externally irradiated from and extensively contaminated by cesium-137 chloride, were flown there from Goiania where the accident occurred. Ten others whom we did not see were in hospital at Coiania (one person, a 14-year-old boy there was apparently as extensively contaminated as his sister (age 6) who had been sent to Rio). We scrubbed in and examined the 10 persons in Rio. Four were considered critical because of granulocytopenia (<500/mm1) and thrombocytopenia (less than 40,000). All 10 had severe radiation burns of which many were third degree. These severe burns were (surprisingly) more superficial than we usually see, perhaps because of the large beta component of cesium-137 radiation as opposed to that of Iridium-192 which we have more experience with.

Complete decontamination of these lesions was not easy and depended on ulceration sloughing and debridement. Several patients with internal contamination received Prussian blue obtained from Germany. This drug worked, but the huge contamination of the interstitial water by cesium could only be lowered slowly. In the case of the female child, her ingestion of the cesium led to GI bleeding in 30 days. We spent a week with the patients and in medical conferences encouraging patient isolation, energetic nursing care, enthusiastic laboratory support and whole-body counting. We had not gotten them a usable high level whole-body counter when we left, but they were well on their way then to converting existing equipment to this use. We anticipate that there will be several deaths in spite of the fine work of a Brazilian hematologist, Dr. Paulo Cezar and two U.S. technicians from Baxter-Travanol who brought in a cell separator and taught the Brazilian staff how to purify platelets.

If Bob or I can expand this summary in any aspect, please let us know.

Sincerely yours,

C. C. Lushbaugh, M.D.

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