Dialysis in AIDS Patients

G.M.		Berlyne
J.		Rubin
A.J.		Adler

Brooklyn VA Medical Center, Brooklyn, N.Y., USA

G.M. Berlyne, MD, Chief of Renal Disease, Brooklyn VA Hospital, 800 Poly Place, Brooklyn, NY 11209 (USA)

A small proportion of patients suffering from AIDS develops end-stage renal failure [1–3], but in view of the rapidly increasing numbers of cases of AIDS throughout the world it would seem advisable to consider the duty of the nephrologist faced with AIDS patients in end-stage renal failure. Clearly we are morally obligated to treat these unfortunate patients. Indeed it is a sine qua non that all patients with renal failure and infectious diseases must be treated whether they have Lassa fever, hepatitis B, or AIDS, although in the USA to our amazement voices have been recently raised opposing therapy in AIDS because of the risk to staff. This is a nonprofessional, amoral attitude to medicine, and we utterly condemn it. Since time immemorial doctors and nurses have treated patients irrespective of the risk to themselves, and no arguments to the contrary can be entertained in the case of AIDS. However, all necessary precautions should be utilized such as standard barrier nursing and other measures described herein later to protect nurses and staff from acquiring the disease from the patient. This necessitates :

Not coming into skin or mucous membrane contact with blood or dialysate from the patient. This can be achieved by the standard gown, mask and gloves, goggles and plastic face shield used in cases of other highly communicable infectious diseases.

Treating all blood spills and dialysate by addition of 12% commercial bleach, so as to destroy HTLV-III/ LAV virus.

Taking great pains to avoid all needle sticking accidents by very careful handling of syringes and needles, avoiding recapping needles, and placing them all in special containers after use.

In our unit in Brooklyn VA Hospital, where we have 1 to 2 AIDS patients on dialysis at any given time, we have introduced the use of a sterile plastic envelope to surround the access limb during hemodialysis, so that

Guérir quelquefois, soulager souvent, consoler toujours.

Trousseau

any blood spillage during needle insertion and removal cannot spray into the room. This is done by inserting the patients' arm through a hole cut in the bottom of a sterile PVC bag, and the nurses' gloved and gowned arms are placed through the wider top. The needles are inserted into arm under visual control, and when they are secured the open end of the bag is sealed with plastic tape or plastic arterial forceps until the end of the dialysis. After needle removal the plastic bag is not removed until he-mostasis is perfect. This method limits blood spray contamination of the dialysis room and the nurse.

Use of dedicated dialysis machines for AIDS patients, sterilized by bleach after use.

If possible, use of separate isolation rooms for dialysis of AIDS patients.

Dialysis of AIDS patients without special precautions should be avoided completely as being an unnecessary hazard to both, patients and staff.

The question of what form of dialysis is preferable in AIDS needs consideration depending on local conditions. Potentially, hemodialysis should be considered as the most suitable choice in patients with pneumonia, and the contaminated resultant dialysate is unlikely to come into contact with ungloved hands. Peritoneal dialysis, on the other hand, may give greater exposure to infection of staff during the disposal of many liters of dialysis fluid presumably containing live HTLV-III/LAV virus. The comments of Dr. Robles et al. in a letter [this issue, p. 375] are thus particularly timely. It should be borne in mind, however, that HTLV-III/LAV virus concentrations in the blood of AIDS patients are less than those of hepatitis B virus in patients who have the hepatitis B.

In addition we suggest:

(1) All patients in high-risk groups – drug addicts, homosexuals, hemophiliacs, patients who have repeated blood transfusions or have been given blood products -should have HTLV-III/LAV antibody titers estimated at

266

Berlyne/Rubin/Adler

regular intervals with Western blot tests for all positives found by Elisa tests (to exclude false positives).

Dialyze all patients in the high-risk groups with the precautions which would be applied if they had positive antibody titers for HTLV-III/LAV virus. This will reduce the risk of infection with those patients who have viremia but do not yet have detectable antibodies.

Check all staff on the hemodialysis unit monthly for seroconversion.

We call for a national cooperative study to examine this problem and make appropriate recommendations. We reaffirm our belief in the need for adequate dialysis in these unfortunate patients.

segmental glomerulosclerosis in the acquired immunodeficiency syndrome. *New Engl. J. Med.* 570:669–673 (1984). Gardenswartz, M.H.; Lerner, C.W.; Seligson, G.R.; Zabetakis, P.M.; Tapper, M.L.; Michelis, M.F.; Bruno, M.S.: Renal disease in patients with AIDS (Abstract No. 28). *Am. Soc. Nephrol.* (1983).

Gardenswartz, M.H.; Lerner, C.W.; Seligson, G.R.; Zabetakis, P.M.; Rotterdam, H.; Tapper, M.L.; Michelis, M.F.; Bruno, M.S.: Renal disease in patients with AIDS. A clinicopathologic study. *Clin. Nephrol.* 21:197–204 (1984).

References