80

AZT SERUM LEVELS IN LONG-TERM PATIENTS FROM WHOM SENSITIVE OR RESISTANT VIRUSES HAVE BEEN ISOLATED

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Objectives: To examine AZT levels in a cohort of HIV patients on long term AZT therapy, to observe: a) if the rate of metabolism differs between patients; b) if serum levels of Zidovudine correlate with isolation of AZT resistant virus and c) if any other clinical symptoms correlate with serum levels of AZT.

Methods: A group of eight patients on AZT therapy (usual regime 250 mg BDS, one patient 250 mg Q.D.S.) were studied. All omitted their morning dose of AZT. Following a 200 mg dose AZT in clinic, serial blood samples were taken over a 4 hour period (at T=O, 15,30,45,60,90, 120,180 and 240 min,). Patients were excluded if they had any history of chronic liver disease or liver function tests out of the normal range. At each time interval a serum and heparinised blood sample were collected. The serum samples were analysed in radio-immune assay to determine metabolism of AZT and G-AZT. Lymphocytes were isolated and pooled from each patient for virus isolation by cocultivation and determination of AZT sensitivity or resistance.

Results: Significant intra-patient variation in serum levels of AZT could be observed. This appears to be independent of duration of therapy and does not seem to correlate with resistant virus isolation. Analysis of the time maxima (T-max) showed the presence of two main groups of patients. In the first group the T-max occurred after 30 min and the T-max of the second patient group was at 90 min.

Conclusions: It could be deduced that those patients with a shorter T-max may not be maintaining an optimum serum level of AZT and this patient group may need more frequent dosing to maintain 'basal' level of the drug. However, serum levels of Zidovudine may not be reflecting intracellular AZT levels or those of the active phosphorylated derivative. Extensive follow up of disease progression would indicate if the early group had a worse prognosis with the current drug regime.

81

Ribavirin Versus Zidovudine in Children with Advanced Human Immunodeficiency virus Disease: Mexican Expecience in 18 Months of Follou-Up. Gorbea M.*, Perez G.*, Paquentin J. Torres F.*, Garibay M. Fortuño V. *Infectology Hospital "La Raza" Medical Center, IMSS. Mexico City

OBJECTIVE: To compare therapeutic response and safety of two antiretroviral agents in 18 months of follow up. **MATERIAL AND METHODS:** We conducted a single-blind, randomized clinical trial in 20 children with symptomatic (CDC class P-2) HIV infection. Ribavirin (RB) (20 mg/kg/day) was administered to 10 children and Zidovudine (ZD) (20 mg/kg/day) was given to 10 infants, both by oral route, during 18 months. All patients had hepatoesplenomegaly, lymphadenopathy, antigenemia, hypergammaglobulinemia and negative relation of $CD4^+/CD8^+$ cells. They were anergic to 7 antigens of delayed-type skin test and they had had opportunistic infections. **RESULTS:** Hepatosplenomegaly and lymphadenopathy improved. Antigenemia disappeared at week 16, 20 and 24, and reappeared at week 32 in both groups. Immunoglobulin values became normal. Total lymphocyte counts declined slightly with percentage increases of $CD4^+$ cells. By week 8, 3/8 skin test antigens were positive. There was one RB patient with pulmonary Cryptococcosis, one with Staphylococcus aureus otitis media and two cases with diarrhea of unknown etiology. Three ZD patients had oral thrush and 2 had Cryptosporidium sp. diarrhea. One ZD patient died in the 13th month by consumption syndrome. Two ZD patients had cephalea and alopecia. No adverse effects to RB were observed. **CONCLUSIONS:** There is a rapid increase of $CD4^+$ cells with ZD but it is short lasting. With RB the improvement is constant, and after 18 months of treatment both drugs are similar. Both antiviral drugs have a positive role in the treatment of HIV-infected children because they lead to a greater survival time, life quality and reduce total cost of therapy in this patients.