

We report a single case of stroke randomized to PD where the treatment procedure was completed with 6 cycles of exchanges according to designed protocol. The patient was 45-year-old, 74 kg of body weight admitted to Stroke Unit of tertiary care hospital after 8 hours of evolution. His medical history included non-insulin dependent diabetes mellitus, active smoker and drinker <40 gr/day. Thrombolysis or endovascular revascularization could not be performed due to the presence of extensive established infarction in the territory of the right middle cerebral artery.

Complementary studies showed edema and signs of mild herniation compatible with malignant infarction with intracranial hypertension that produced a slight decrease of consciousness at the beginning. As described in the scientific literatura (Haecki et al., 96, Vahedi et al., 07), the prognosis of these malignant middle cerebral artery infarctions who do not receive decompressive craniectomy is poor, with case fatality rates of nearly 70-80% and with a dependency rate, defined as rankin score modified from 3 to 5 at the third month, in survivors reaching the 90%. In our case, after the application of the PD protocol, a good clinical evolution was evidenced. The patient did not require decompressive craniectomy and his functional status measured at three months was really satisfactory, avoiding severe disability, with a score of 1 on the modified rankin scale. The probability that a patient with these characteristics presents a satisfactory clinical outcome based on data from the published series (Vahedi et al., 07) of similar cases is only 2%.

Moreover, a 44% reduction in Glu levels after 2 hours from the start of dialysis was observed consequently with a striking increase in Glu levels in dialysed fluid at 24 hours after 6 dialysis cycles showing that la PD was effective to reduce Glu levels in the patient after stroke.

This is a single case and there is insufficient evidence to obtain conclusions but it can provide us with data for subsequent study designs.