P1534 EFFECT OF HIGH-FLUX DIALYZER MEMBRANE SURFACE AREA ON SURVIVAL IN CHRONIC HEMODIALYSIS PATIENTS

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Background and Aims: High-flux dialyzer membrane material has been shown to improve mortality in hemodialysis (HD) patients. However, little is known about the impact of surface area of dialyzer membrane on prognosis in HD patients. A retrospective analysis was undertaken to investigate whether the difference in high-flux dialyzer membrane area affects survival rate.

Method: We observed 119 patients (43 females, mean age; 68 years, and HD duration; mean 84.4 months) maintained on HD for up to 5 years and 7 months. All patients were divided into two groups according to the surface area of dialyzer membranes; S group, 39 patients treated with the dialyzer membrane area of $<1.5m^2$ (mean 1.0 ± 0.1 m^2) and L group, 80 patients treated with that of $\geq1.5m^2$ (mean 2.0 ± 0.2 m^2). We analysed survival rate by Kaplan-Meier method.

Results: The patients were treated with four types of high-flux dialyzer membranes. S group included 21 patients with cellulose triacetate (CTA), 17 patients with polysulfone (PS) and 1 patient with polymethylmethacrylate. L group included 2 patients with CTA, 71 patients with PS and 7 patients with polyethersulfone (PES). Thirty-two patients, including 12 patients in S group and 20 patients in L group, had diabetes mellitus (DM). Survival rate was compared between the two groups, patients treated with CTA, PS and PES, and those with and without DM by Kaplan-Meier method. Type of dialyzer membranes used did not affect survival rate at the final observation (65.2% in CTA, 75% in PES and 50% in PS, p=0.26). The surface area of dialyzer membrane did not have a significant impact on mortality; survival rate at 3-year for S group, 71% vs L group, 77%, at 5-year for S group, 51% vs L group, 59%, and at the final observation for S group, 48%, vs L group, 58% (p=0.352). Among 32 diabetic patients, survival rate at the final observation did not differ between the two groups (S group, 33%, vs L groups, 45%, p=0.477). Among 87 non-diabetic patients (S groups; 27 patients), survival rate did not differ between the two groups at the final observation (S group, 56%, vs L group, 63%, p=0.575).

Conclusion: We conclude that difference in high-flux dialyzer membrane area is unlikely to affect survival rate in HD patients.