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LETTER TO THE EDITOR

Comment on: *Hemodiafiltration in a critical dialysis patient with H1N1 influenza A*

Uremia-induced immune dysfunction[1] is a particular risk for H1N1 infection. A 28-year-old patient with dilated cardiomyopathy and 28% LVEF under chronic three times a week, 210 min acetate free biofiltration hemodialysis using a polyacrylonitrile dialyzer, presented with fever (39°C), dyspnea, myalgia, pharyngitis, cough, volume overload, and consciousness impairment. Blood pressure was 160/90 mmHg. Chest X-ray showed multiple airspace opacification bilaterally. Serum creatinine was 15.5 mg/dL and BUN 179, Na^+ 128 mEq/L, K^+ 5.5, and PO_4^- 10.2, creatine kinase 3002 UI/L. Biological pharyngeal and nasal mucosa tampon according to the Centre for Disease Control, Atlanta, USA, was positive for virus H1N1 infection. The patient was treated with Zanamivir twice a day, cephalosporin 2 g, and levofloxacin 250 mg per day. As for dialysis treatment, a 4 h post-diluted hemodiafiltration (HDF) using ultraflux dialyzer 2.2 m^2 was prescribed in consideration of the particular effect of HDF on the removal of pro-inflammatory cytokines.[2] Dialysis parameters were Qb 300 mL/min, Qs 4200 mL/h, QINF 4200 mL/h, QUF 850 mL/h. Infusion solution bags contained Na^+ 145 mmol/L, K^+ 3.5 mmol/L, Ca^{++} 1.8 mmol/L, HCO_3 45 mmol/L, glucose 25 mmol/L, pH ranging between 7 and 8.5. HDF was performed for three consecutive days removing 6.1, 4.0, and 2.5 L of fluid, respectively, and two more HDFs on alternate days. Patient's respiratory status highly improved and after 4 days the patient was apyretic. Nine days after admission, the patient was discharged with cleaned chest X-ray.

As the removal of pro-inflammatory cytokines with a subsequent better control of the hemodynamic status is a priority for these patients, HDF may be a good option for dialysis patients with H1N1 influenza A.

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