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Successful Brain Dead Donor Management with CRRT

- A Case Report -

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Brain death results in adverse pathophysiologic effects in many brain-dead donors with cardiovascular instability. We experienced a brain-dead donor with continuous renal replacement therapy (CRRT) who was in a severe metabolic, electrolyte derangement and poor pulmonary function. The thirty-nine-year-old male patient with subarachnoid hemorrhage and intraventricular hemorrhage was admitted into the intensive care unit (ICU). After sudden cardiac arrest, he went into a coma state and was referred to as a potential organ donor. When he was transferred, his vital sign was unstable even under the high dose of inotropics and vasopressors. Even with aggressive treatment, the level of blood sugar was 454 mg/dl, serum K⁺ 7.1 mEq/L, lactate 5.33 mmol/L and PaO₂/FiO₂ 60.3. We decided to start CRRT with the mode of continuous venovenous hemodiafiltration (CVVHDF). After 12 hours of CRRT, vital sign was maintained well without vasopressors, and blood sugar, serum potassium and lactate levels returned to 195 of PaO₂/FiO₂. Therefore, he was able to donate his two kidneys and his liver.

Key Words: brain-dead donor, continuous renal replacement therapy, potential organ donor.

(End-

stage organ disease)

(expanded criteria donor
,)
(non-heart beat-
ing donor)

Replacement Therapy, CRRT)

(Continuous Renal

증례

[1]

48 kg 38

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(extraventricular drainage, EVD)

120/80

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mmHg 88 , 5 mm/5 mm
50%

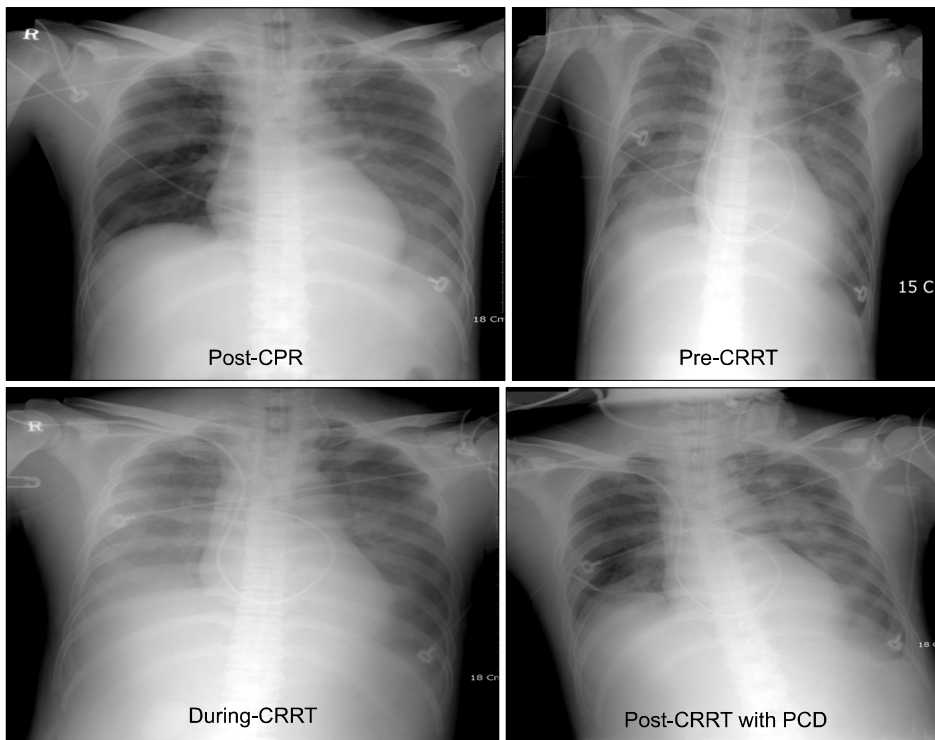


Fig. 1. Chest AP of the patient.

prefilter
 4 Creatinine
 1.5 mg/dl, 183 mg/dl, K 4.8 mmol/L, Na
 147 mmol/L, 6
 100%
 pH 7.449, PaO₂ 190.6 mmHg, PaCO₂ 28.8 mmHg, BE 3.0
 mmol/L, HCO₃ 19.5 mmol/L, 99.4%, P/F
 190.6 100%
 70% 114/74 mmHg
 111
 8 norepinephrine vasopressin Salim
 , dobutamine 11 μg/kg/min 7 μg/kg/min [2] 69 97.1%
 , 4 creatinine 1.3 mg/dl 55.1%, 53.6%
 , 96 199 mg/dl, Na 145 mmol/L, 46.4%, 30.4%, 24.6%
 K 4.7 mmol/L, 108/73 mmHg, 85 20.3%, 13.0%
 12
 8 3

고찰

catecholamine

[3]

hemoadsorption

Kellum [4]

8

cytokine

hemoadsorption

IL-6

cy-

tokine

hemoadsorption

Venkataraman [5]

hemoadsorption

[6,7]

[8] Peng [9]

hemoadsorption

cytokine

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