A successful combination of scheduled plasma exchange with continuous veno-venous hemofiltration in treatment of fulminant hepatic failure due to ochratoxin A

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Objectives: To describe a successful combination of scheduled plasma exchange (PEX) with continuous veno-venous hemofiltration (CVVH) and other supportive therapies in treatment of fulminant hepatic failure due to ochratoxin A poisoning from an outbreak after in eating stale maize cake.

Methods: (1) Asking history from the patient, his family members, doctors and medical specialists who directly gave first aid and treated these patients, (2) Medical records of two death cases at Ha Giang province hospital, (3) Observed clinical manifestation and laboratory test at PCC Bach Mai hospital, (4) Ochratoxin A was detected in the patient urine by high-performance liquid chromatography.

Results: A 13-year-old boy live in Ha Giang province, Vietnam. His family had 6 other victims eating stale maize cake (4 persons had died: 01 at home, 01 in the Can Ty district hospital, 02 in Ha Giang province hospital; 2 alive other persons had mild symptoms, who were followed and treated in Ha Giang hospital). The patient ate 4 fried maize cakes at 21h, 04/29/2013. 18 hours later, colic, nausea, exhausted, Glasgow 12, HR 112, BP 100/50, T 370C; GOT 268 UI/L, GPT 326 UI/L, APTTs 75,7; fibrinogen 0,004 g/L; RBC 5,07 T/L, PLT 234 G/L, WBC 6,9 G/L. 44 hours later, more exhausted, and was transferred PCC Bach Mai hospital at 93th hours. On admission: GSC 12, irregular sinus rhythm 66-88, BP 100/40, T 370, SpO2 96% (room air), RR 30, yellow skin but not hemorrhage. GOT 8035 U/L, GPT 8010 U/L, total bilirubin 96,5 µmol/L, direct bilirubin 52,2 µmol/L, prothrombin 7,4%, INR 7,8, APTTs 61,7, Fibrinogen 0,85 g/L, Protein 56,7 g/L, Albumin 28,6 g/L; pH 7,52, pO2 68, PCO2 39, HCO3 31,8, BE 8,9, Lac 3,8; RBC 4,75 T/L, PLT 150 G/L, WBC 12,6 G/L; urea 7,1 mmol/L, creatinine 68 µmol/L. PEX was used for this patient with 1200 mL volume of plasma for each of 4 times. Duration between two PEXs was ~ 8 hours for rapidly eliminating toxins and liver failure support. CVVH right after each course of PEX with 45 mL/kg/hour of replacement fluid.

Conclusion: Fulminant hepatic failure due to ochratoxin A could be early treated by combination of scheduled PEX with CVVH and other supportive therapy was an effective treatment for the case.