HEMOLYTIC UREMIC SYNDROME (HUS) ASSOCIATED WITH ESCHERICHIA COLI INFECTION IN AN ADULT: A CASE REPORT.

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Background: Hemolytic uremic syndrome (HUS) associated with Shiga toxin-producing Escherichia coli (STEC) is the most common cause of acute kidney injury in children. There are only a few reports of Escherichia coli hemolytic uremic syndrome producing sporadic Shiga toxin in adults.

Methods: A 53-year-old patient goes to the emergency room for fever, vomiting and diarrhea. On blood tests, kidney function and blood count were normal. After two days, acute oliguric renal failure developed and the clinical course was complicated by biliary peritonitis secondary to acute cholecystitis for which an urgent cholecystectomy was performed. For the increase in renal function indices and for the persistence of anuria, hemodialysis treatment was started in CVVHDF (Continuous Hemodiafiltration) mode (Fig.1). To the laboratory tests: LDH increased, platelets 42000 /uL, Hb 9 g/dl, normal coagulation parameters, haptoglobin consumption, negative Coombs test, ADAMTS13 activity of 40%, mild hypoC3 C1 inhibitors and C4, ANA and ANCA negative. In addition, schistocytes 1-2% in the peripheral blood smear and the presence of Shiga Toxin were highlighted.

CRRT (Continuous renal replacement therapies)
Dialysis method: CVVHDF (Continuous Hemodiafiltration)
Vascular access: temporary bilumed central venous catheter in the right internal jugular vein
Dialysis dose: 25 ml/Kg/h
Anticoagulation: Regional anticoagulation with citrate
Blood flow: 150 ml/min
Uf Flow: 1000 ml/h
Dialysate flow: 2000 ml/h

Fig. 1. Data CRRT.

Given the improvement of hemodynamic stability, six hemodialysis sessions were performed in standard bicarbonate mode, with improvement in renal function parameters. In the following days there was a normalization of platelets and a progressive improvement of renal function. In discharge serum creatinine was 2.1 mg/dl (Fig.2).

Results: Supportive care and dialysis were the primary therapy in STEC-HUS in this patient. Although the literature shows the highest mortality rate in adults > 60 years, we demonstrate that this disease is poorly considered in adults and that delays in diagnosis often cause worse prognosis.

Conclusion: Our case demonstrates the importance of recognizing Shiga toxin-producing Escherichia coli as a cause of microangiopathic hemolytic anemia in older people and supportive care as the best approach.

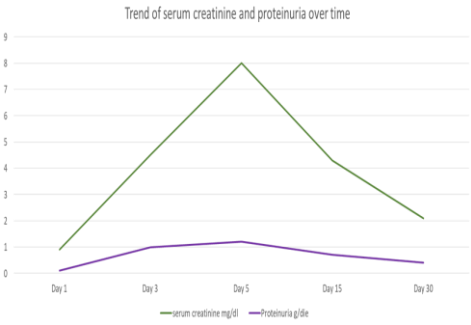

Fig.2. Trend of Creatininemia