ECULIZUMAB IN THE ATYPICAL HEMOLYTIC UREMIC SYNDROME: A CASE REPORT

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BACKGROUND

Atypical hemolytic uremic syndrome (aHUS) is a severe life-threatening disease with progression to end-stage renal disease. *Eculizumab*, a humanized anti-C5 monoclonal antibody targeting the activated complement pathway, has been introduced as a therapy against aHUS.

PURPOSE

Demonstrate efficacy and safety of *Eculizumab* in brief and sustained interruption of the thrombotic microangiophaty process, the increase in the number of platelet and the significant inprovement of renal function in the long term with important reduction of dialysis and plasmapheresis needs.

MATERIAL AND METHODS

Observational, retrospective and descriptive study of a patient with aHUS.

The information has been obtained from the electronic clinical history *(SELENE®)* and the Pharmacy Service Managing software *(FARMATOOLS®).*

RESULTS

Patient: 60 year old female, that was hospitalized with renal failure symptoms (**Cr:16,6 mg/dL**) associated to severe anemia (**Hb:4,5 g/dL**) and thrombopenia (**platelet:111.000 U/µL**) without previous infection. Started with alternative renal therapy and red blood cells transfusion. Autoimmune studies were requested detecting ANCA+ antibodies presence, so steroids treatment were started, associated to ciclofosfamide with no response.

Due to thrombopenia persistence, we decided to start plasmapheresis with good response, stabilizing hemoglobin and increasing the platelet count; however renal failure function and thrombotic microangiophaty parameters persisting.

From the patient admission (07/01/2015-22/02/2015), she needed 14 plasmapheresis sessions and 2 ciclofosfamide bolus with active hemolysis patern as so dependence on substitutive renal therapy.

The patient started this therapy on 22/02/2015 with 4 doses, 900mg/week, with good response. No further transfunsions or plasmapheresis were needed, with increase in **platelet** count **(50.000 to 135.000U/µL)** and **creatinine (7 to 5,42mg/dL).** After a week without this drug, analytical values got worse (**platelet:111.000U/µL** and **creatinine:11,71mg/dL**), so *Eculizumab* use was autorized as maintenance therapy, 1.200mg/15 days.

After a month with this mantainence therapy, the result is an increase in **platelet** count up to **182.000mg/dL**, in **hemoglobin** up to **9,1g/dL** and in **creatinine** up to **7,33mg/dL.**

CONCLUSION

FDA, EMA and AEMPS have approved the use of *Eculizumab* for treating aHUA.

With this good response in this clinical case, Eculizumab is efficay for aHUS. However, the treatments high cost requires correct patología identification in patients, so each case should be studied by a multidisciplinar team (Hematology, Nephrology and Pharmacy).

This case was discuted in the Pharmacy & Therapeutics Committee (P&TC) and *Eculizumab* was approved for a month. Each dose was prepared under aseptic techniques in the Pharmacy Service. The patient was reviewed again after the good response due to the induction period so *Eculizumab* was autorized as maintenance therapy. The P&TC pharmacist informs every month patient´s clinical evolution (platelet count & creatinine).