

ECULIZUMAB FOR DENSE DEPOSIT DISEASE: INCREASED DOSAGE WITHOUT RESPONSE: A CASE REPORT

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4-CPS-152

ATC: L04 – IMMUNOSUPPRESSIVE AGENTS

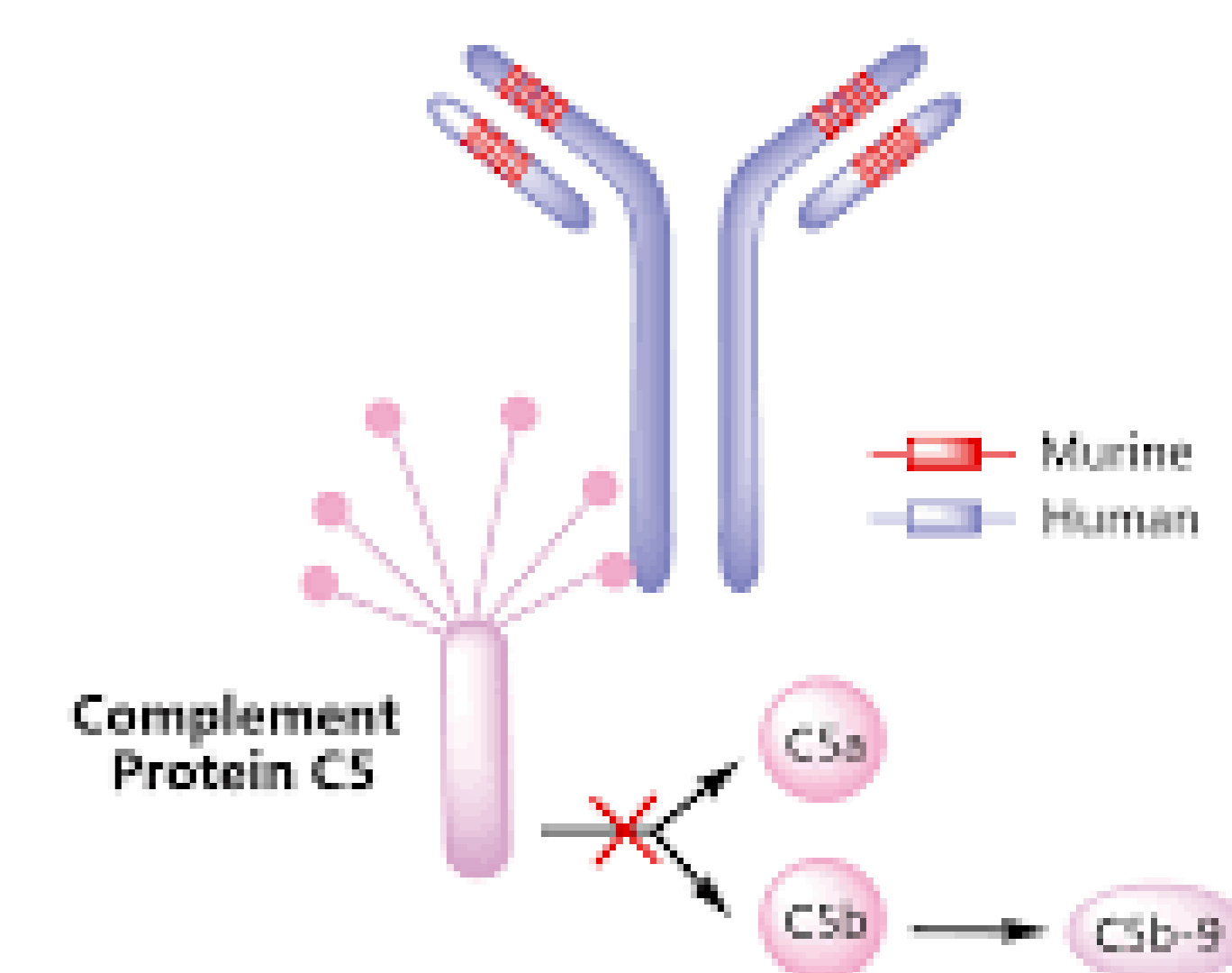
OBJECTIVE

Dense deposit disease (DDD) is a rare glomerulonephritis caused by uncontrolled stimulation of the alternative complement pathway. Allograft survival after kidney transplantation is significantly reduced by the high rate of disease recurrence. No therapeutic interventions have consistently improved outcomes for patients with primary or recurrent disease. Eculizumab may represent an alternative for these patients but the reported data are limited.

To describe a case of a patient with DDD treated with eculizumab after failure to renal transplantation.

MATERIAL AND METHODS

66-year-old male patient, with chronic renal failure due to membranoproliferative glomerulonephritis type I, who received a kidney transplant in November 2009. In December 2010 the patient had to resume hemodialysis because of disease recurrence. In February 2015 he received the second kidney transplant, with corticosteroid resistant Failure in December 2016. The deteriorating graft function and increasing proteinuria were evident. A transplant biopsy confirmed the diagnosis of recurrent DDD.



RESULTS

After diagnosis, intravenous cyclophosphamide was administered and 6 sessions of plasmapheresis were performed with important leucopenia and without evidence of improvement. Creatinine and urea values were 2.57 and 94 mg/dL, respectively. Treatment with eculizumab was requested, as an off-label use. The patient received a loading dose of 900 mg weekly for 4 weeks, continuing with a maintenance dose of 1,200 mg every other week during two months. Renal function progressively worsened (creatinine: 4.3 and urea 233 mg/dL) with hematuria and severe proteinuria (>4 g/24h), so it was thought that eculizumab could be excreted in the urine. Considering this, it was decided to increase the dose of eculizumab to 1,500 mg to assess response. After two additional doses, therapeutic failure was confirmed. Patient had acidosis and creatinine and urea values of 4.5 and 250 mg/dL, so hemodialysis was resumed.

CONCLUSIONS

- ✓ Eculizumab has been used without strong evidence and had no results in this case. Dose increase to 1,500 mg is not described in the literature. As a drug of high economic impact, it seems necessary to establish strict criteria of use to select the patients who can really benefit from treatment with eculizumab, particularly as off-label use.

ACKNOWLEDGEMENTS: Leticia Gómez de Segura Iriarte