TOCILIZUMAB TREATMENT FOR NEPHROTIC SYNDROME DUE TO SECONDARY AMYLOIDOSIS IN RHEUMATIC AND INFLAMMATORY DISEASES

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Introduction and Aims: Secondary amyloidosis (SA) is a serious complication of some chronic inflammatory diseases. In those patients renal affection worsens the prognosis. To prevent of SA the control of the underlying disease is necessary, but when SA has developed no standardized treatments are available and at the present time remain an intractable complication.

Methods: We report 3 patients with nephrotic syndrome due to SA where treatment with tocilizumab (TCZ)

Results: Case report 1 A 58 year-old woman was diagnosed with seronegative polyarthritis at age 28 have been treated with oral corticosteroids. The patient developed proteinuria, in April/2010 results of laboratory were: Crp 0.78mg/dl, cholesterol 261mg/dl, triglycerides 224 mg/dl, albumin 29.5g/l, total proteins: 55.7g/dl, Proteinuria: 5.97g. ANA, ANCA, anti-cyclic citrullinated peptide and rheumatoid factor: normal range. In August 2010 we performed a percutaneous renal biopsy showing amyloid protein deposit in glomerulus. Proteinuria increased up to 11gr/24h and was treated with losartan and aliskiren. Then, we decided to start TCZ al 480mg/month. Nowadays, after 5 years under TCZ treatment the proteinuria level is progressively decreasing, nephrotic syndrome has disappeared, the renal function has been stabilized and arthritic pain improved. Case report 2 46 years old Spanish man with a big pressure ulcer and osteomyelitis in sacrum secondary a paraplegic status. He has an intractable pressure ulcer with reconstructive surgical procedures. Since 3 years ago the patients had nephrotic syndrome with 24-h protein excretion 6g and normal kidney function. We performed a renal biopsy and secondary amyloidosis was diagnosed. Antibiotic was administered and was treated with valsartan and Paricalcitol, but his serum creatinine increased and nephrotic syndrome became worst. Therefore, when the conventional treatment was unsuccessful, TCZ was administered at a dose of 8mg/kg on a monthly. We administered three doses. C-reactive protein (CRP) remains high between 6 to 12mg/dL and his serum creatinine was worsened and he needed to start a hemodialysis. The proteinuria up to 11g. 8 months after therapy the patient died secondary to shock septic from infection in pressure ulcer. Case report 3 A 56 years old woman was diagnosed with diffuse scleroderma (ANA (1/160), AntiSSA/RO and AntiSSB/LA, AntiSCL70: positive) at 32 and she had a cerebrovascular disease. She was under treatment with all the conventional therapies in the latest years. In December 2014 we performed a kidney biopsy to study the proteinuria, 3g/day and showed amyloid AA protein deposit in glomerulus.Before we started the treatment she has skin lesions in her hand, ulcers and Raynaud syndrome. No dyspnea and no digestive tract lesions. We started to treat in March 2015 with TCZ at a dose of 8 mg/kg on a monthly during 5 months. The nephrotic syndrome worsened up to 6g/24h, CRP increased from 1mg/dl to 10.52mg/dl and the kidney function remain stable. In September, she had a cardiac arrest and the patient died.

Conclusions: Safety and efficacy of 5-year treatment with an anti-IL-6 receptor antibody tocilizumab (TCZ) on seronegative polyarthritis and AA amyloidosis were estimated. It has emerged as an effective and specific treatment in AA amyloidosis secondary to chronic inflammatory and rheumatic disorders in patients who are refractory to conventional therapies.