



## **FOCAL TUBULAR ATROPHY AND INTERSTITIAL FIBROSIS RELATED TO THE USE OF LEFLUNOMIDE IN A PATIENT WITH RHEUMATOID ARTHRITIS: A CASE REPORT.**

HIANNY RIBEIRO CABRAL (FACULDADE DE CIÊNCIAS MÉDICAS DE CAMPINA GRANDE, CAMPINA GRANDE, PB, Brasil), ARTHUR LIRA ARAÚJO (FACULDADE DE CIÊNCIAS MÉDICAS DE CAMPINA GRANDE, CAMPINA GRANDE, PB, Brasil), PAULO ROBERTO SILVA JÚNIOR (FACULDADE DE CIÊNCIAS MÉDICAS DE CAMPINA GRANDE, CAMPINA GRANDE, PB, Brasil), JOSÉ GUSTAVO AGUIAR LOPES (FACULDADE DE CIÊNCIAS MÉDICAS DE CAMPINA GRANDE, CAMPINA GRANDE, PB, Brasil), DOUGLAS FIGUEIREDO SANTOS (FACULDADE DE CIÊNCIAS MÉDICAS DE CAMPINA GRANDE, CAMPINA GRANDE, PB, Brasil), NORIVAN SILVA LINHARES JÚNIOR (FACULDADE DE CIÊNCIAS MÉDICAS DE CAMPINA GRANDE, CAMPINA GRANDE, PB, Brasil), Bárbara Araújo BATISTA (FACULDADE DE CIÊNCIAS MÉDICAS DE CAMPINA GRANDE, CAMPINA GRANDE, PB, Brasil), LUCAS GABRIEL CRUZ DE MENEZES CHAVES (FACULDADE DE CIÊNCIAS MÉDICAS DE CAMPINA GRANDE, CAMPINA GRANDE, PB, Brasil)

### **BACKGROUND**

Leflunomide is used to treat active moderate-to-severe rheumatoid arthritis (RA) and psoriatic arthritis. It is a pyrimidine synthesis inhibitor and belongs to immunosuppressive disease-modifying antirheumatic drug (DMARD) category. The most common adverse events associated with leflunomide treatment include gastrointestinal symptoms, allergic reactions, alopecia, and elevated liver enzyme levels. Adverse events were generally mild to moderate in severity and resolved without sequelae. Neither increased serum creatinine nor any other sign of renal toxicity was noted in clinical trials, and there is no recommendation for dose adjustment for patients with renal impairment.

### **CASE REPORT**

A 41-year-old female patient with a negative rheumatoid factor rheumatoid arthritis, initially treated with methotrexate and prednisolone, had her therapeutic regimen modified for leflunomide and prednisolone due to ineffectiveness and adverse events (such as nausea) associated with the first drug. After 30 days of the initiation of leflunomide, the patient returns to the service complaining of weight loss, anorexia, nausea and epigastralgia. Brought laboratory tests, which showed a rapid drop in her hemoglobin levels (baseline Hb 10.4 g/dL - Hb post leflunomide 8.7 g/dL), with elevated nitrogen dross (baseline creatinine 0.89 mg/dL - creatinine leflunomide 1.48 mg/dL), and was referred to hematology and nephrology for investigation. A myelogram and renal biopsy were performed. The myelogram showed hypoplastic bone marrow in the erythrocyte line. Renal biopsy revealed normal glomeruli, focal tubular atrophy with discrete interstitial fibrosis and focal tubulointerstitial nephritis. After the suspension of this drug, there was a normalization of hemoglobin and creatinine levels.

### **CONCLUSION**

After extensive research in databases, we found that, among the side effects of leflunomide, there are no reports showing any type of renal damage. Considering that the patient was on monotherapy and that there was a complete resolution of the renal impairment after the drug was stopped, it is necessary to report the possibility of renal injury associated to the use of leflunomide to the health surveillance authorities.