CORRELATION BETWEEN SERUM CHOLINESTERASES LEVEL AND THE INFLAMMATORY ACTIVITY IN RHEUMATOID ARTHRITIS PATIENTS

Camila Oberg Torrezan^{1,*}, Wilson Baleotti¹, Marcelo Ortega Ruiz², Agnaldo Bruno Chies¹, Marcos Renato de Assis¹

1.Faculdade de Medicina de Marília, Marília (SP), Brazil; 2.DB Diagnósticos, Marília (SP), Brazil.

*Corresponding author: camilaoberg@hotmail.com

BACKGROUND

This work aimed to assess the relation of serum cholinesterase levels to rheumatoid arthritis inflammatory activity and prognosis.

METHODS

A cross-sectional study with rheumatoid arthritis outpatients from Clinics of Faculdade de Medicina de Marília (FAMEMA) was conducted. Patients were evaluated with the disease activity score (DAS-28), serum levels of AChE and BChE, erythrocyte sedimentation rate (ESR), C-reactive protein (CRP), uric acid, nitric oxide, thiobarbituric acid reactive substances (TBARS) test and total plasma antioxidant capacity (FRAP).

RESULTS

Our study enrolled 91 rheumatoid arthritis patients, from which 84% were female. There was no correlation between serum ChE levels and disease activity, except for the negative correlation of BChE level with pain analog visual scale. The AChE level presented a negative correlation with the TBARS test.

CONCLUSION

BChE has shown a negative correlation with pain analog visual scale, but no other correlation was detected regarding disease activity. In this study, we could not reinforce the potential of using the cholinergic anti-inflammatory pathway as a suppressor of the inflammation in rheumatoid arthritis patients.

KEYWORDS

Rheumatoid arthritis, Cholinesterases, Cholinergic anti-inflammatory pathway, Acetylcholine.