Role of LncRNA-AF085935, IL-10 and IL-17 in Rheumatoid Arthritis Patients with Chronic Hepatitis C

Abstract

Background: The current study aimed at testing the effect of corticosteroid therapy on serum levels of interleukin-10 (IL-10) and IL-17 as well as lncRNA-AF085935 in patients of rheumatoid arthritis (RA) associated with hepatitis C virus (HCV) and evaluating the usefulness of using these parameters to predict the therapeutic efficacy of steroids in these patients.

Methods: Thirty healthy control subjects and 65 chronic HCV patients with RA were included in our study. Patients were subjected to clinical examination, abdominal ultrasound, and liver biopsy and received 6-methyl-prednisolone (PDN) 16 mg/day for 48 weeks. Blood samples were collected from all subjects and serum was separated to assess IL-10 and IL-17 by ELISA and HCV RNA and lncRNAAF085935 by qRT-PCR.

Results: Our study revealed that there were significant increases in serum levels of IL-10, IL-17 and lncRNA-AF085935 in RA patients associated with HCV compared with healthy control subjects. Also there were significant increases in serum levels of IL-10 and HCV RNA and a significant decrease in serum level of IL-17 in patients after corticosteroid therapy, while lncRNA-AF085935 is not significantly changed.

Conclusion: LncRNA-AF085935 might be a useful candidate biomarker for the early detection of RA associated with HCV, providing potential new strategies for early screening and therapy of these patients. IL-17 is a non-invasive prognostic marker to predict the efficacy of corticosteroid therapy in RA patients associated with chronic hepatitis C.