

**Serum miR-224, miR-760, miR-483-5p, miR-378 and miR-375
as
potential novel biomarkers in rheumatoid arthritis**

Abstract

Rheumatoid arthritis (RA) is an inflammatory autoimmune disease which affects various tissues and organs mainly joints. Serum microRNAs are considered a new class of non- coding RNA which plays a vital role in pathogenesis of RA.

Methods: The current study was conducted on 80 RA patients and 80 healthy participants. Serum expression levels of miR- 224, miR- 760, miR- 483- 5p, miR- 378 and miR- 375 were evaluated via real- time quantitative polymerase chain reaction (PCR)

Results: Significant upregulation of miR- 224, miR- 760, miR- 483- 5p, miR- 378 and miR-375 was reported in the present study with respect to the control group (P = .031, P = .017, P = .026, P = .036 and P = .05, respectively). Furthermore, significant positive correlation between the abovementioned microRNAs with DAS28 score (P < .001, each) was demonstrated.

Conclusion: Early detection of RA could be achieved through evaluation of serum expression of miR- 224, miR- 760, miR- 483- 5p, miR- 378 and miR- 375 which also may be used as targets for treatment of patients with RA.