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## PHARMACEUTICAL BIOTECHNOLOGY

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**The relationship of adiponectin, vitamin D, copper and zinc serum levels with rheumatoid arthritis****Nahid Kianmehr, Marya khajuinia, Anousheh Haghighi, Farhad Seif, Majid Khoshmirsafa and Maryam Hasani Nevisi**  
Iran University of Medical Sciences, Iran**Aim:** To compare the serum levels of adiponectin, vitamin D, copper and zinc in rheumatoid arthritis (RA) patients and to investigate the relationship between these factors and disease severity.**Method:** Ninety patients with RA and 30 healthy individuals were participated in this study according to the ACR/EULAR criteria for RA. Serum concentrations of adiponectin were determined by ELISA, copper and zinc by colorimetric spectrophotometry and vitamin D by HPLC methods.**Results:** Serum adiponectin and vitamin D were increased and decreased in RA patients, respectively. Adiponectin and disease severity are positively correlated, whereas vitamin D and disease severity are negatively correlated. Adiponectin negatively correlate with vitamin D and positively correlated with disease activity score (DAS). Copper and zinc showed no significant difference between two groups.**Conclusion:** The definitive roles of adiponectin, vitamin D, copper and zinc is not completely determined. More investigations are needed to deeply explore the impact of them on RA pathophysiology. Finally, we suggest these serum factors as promising diagnostic and therapeutic biomarkers.**Biography**

Nahid Kianmehr is a member of Faculty of Iran University of Medical Sciences since 2000. His research interests include Internal Medicine and Rheumatology. He is a Fellow of Emergency Medicine from George Washington University.

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