

**Study of the Role of Hepcidin in Anemia of
Chronic
Disease Associated With Rheumatoid Arthritis.**

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

{قَالُوا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ}

(البقرة ٣٢)

Abstract

Hepcidin, a circulating peptide hormone, is the master regulator of systemic iron homeostasis. In the present study, we aimed to assess levels of serum pro-hepcidin, the pro-hormone form of hepcidin, its relation with iron status, acute-phase reactants, and its possible role in the development of anemia in a cohort of RA patients as to date, there are no commercial kits available for the measurement of hepcidin in serum specimens. The study includes 30 patients with RA (24 females & 6 males) & 30 healthy controls(16 females & 14 males) & we conclude that pro-hepcidin levels correlate with disease activity as negative acute phase reactant but its' levels analysis not correlate with anemia in RA group .

Key words:

- Anemia of Chronic Disease.
- Pro-Hepcidin.
- Rheumatoid Arthritis.

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List Of Abbreviations

- AI Anemia Of Inflammation.
- ACR..... American College of Rheumatology.
- CCPs.....Cyclic Citrullinated Peptides.
- CFU-E.....Erythroid Colony-Forming Units.
- CRP.....C- Reactive Protein.
- DAS28.....The Disease Activity Score Derivative.
- Dcytb.....Duodenal Cytochrome B.
- DMT.....Divalent Metal Transporter.
- Epo.....Erythropoietin.
- ESR.....Erythrocyte Sedimentation Rate.
- Hg.....Hemoglobin.
- HLA.....Human Leukocyte Antigen.
- IDA.....Iron-Deficiency Anemia.
- IL.....Interleukin.
- IRE.....Iron-Responsive Element.
- IRP.....Iron Regulatory Protein.
- MAO..... Monoamine Oxidase.
- MCHC.....Mean Corpuscular Hemoglobin Concentration.
- MCV.....Mean Corpuscular Volume.

List of Abbreviations cont.

- MCP..... Metacarpo-phalangeal.
- MRIMagnetic Resonance Imaging.
- MTP..... Metatarsal Phalangeal.
- PHRC.....Percentage of Hypochromic Red Blood Cells.
- PIP..... Proximal Interphalangeal .
- PTPN22.....Protein Tyrosine Phosphatase Nonreceptor 22.
- RA.....Rheumatoid arthritis.
- RDA.....Recommended Daily Allowance.
- RDW.....Red Cell Distribution Width.
- RF.....Rheumatoid Factor.
- rhIL-6.....Recombinant Human Interleukin-6.
- SDAI.....The Simplified Disease Activity Index.
- SE.....Shared Epitope.
- TfR.....Transferrin Receptor.
- TIBC.....Total Iron-Binding Capacity.
- TNF.....Tumor Necrosis Factor.
- TS.....Transferrin Saturation.
- UIBC.....Unsaturated Iron-Binding Capacity.

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