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Thesis Title	Effects of CD20 Inhibitor Therapy in Comparison to TNF α Inhibitor Therapy on Serum IL-17 in Patients with Active Rheumatoid Arthritis			
Year	2013			
Abstract	<p>Background : Rheumatoid arthritis (RA) is a chronic , systemic , inflammatory disorder that may affect many tissues and organs ,but principally attacks flexible(synovial) Joints , the pathogenesis of RA is not completely understood .</p> <p>Objective : To evaluate the effects of CD20 inhibitor therapy in comparison to effects of TNF α inhibitor therapy on serum IL-17 in patients with active rheumatoid arthritis.</p> <p>Setting : This study was performed during the period from October 2012 to May 2013 . The subject were selected from the patients attending the out patients clinic in Medical city /Baghdad Teaching Hospital / Rheumatology unit and the laboratory tests were done in Medical City /Teaching Laboratories .</p> <p>II</p> <p>Subjects : The study include 70 patients and 20 healthy control individuals , their age range from 20 – 68 years . The patients were divided into three groups:</p> <ul style="list-style-type: none"> - Group (1)consist of 20 RA patients received disease modifying anti rheumatic drugs(DMARDs) . - Group(2) consist of 25 RA patients received biological treatment Etanercept (anti TNFα) . - Group(3) consist of 25 RA patients received biological treatment Rituximab (anti CD20). <p>Methods : Enzyme Linkade Immunosorbent Assay (ELISA) test was used for the determination of IL-17 , Leptin and hsCRP , while colorimetric method was used for the determination of uric acid . Rheumatoid</p>			

factor (RF) was detected by serological investigation . The only anthropometric parameter in this study was body mass index(BMI).

III

Results :

The current results revealed that serum levels of hsC-RP , ESR and RF were significantly higher in patients than in healthy controls. While serum level of IL-17 was significantly lower in patients who are undertreatment than in healthy control ($P < 0.05$).

There was significant difference among groups : serum level of IL-17 :

- in group 1 higer than in group 2 ($P < 0.05$)

- in group 2 higer than in group 3 ($P < 0.05$)

There was no significant difference between all the groups in this study regarding level of uric acid ($P > 0.05$) and the level of the leptin ($P > 0.05$) , also significant positive correlation among each of ESR , hsC-RP , IL-17 ($P < 0.05$) and ($0 < r < 1+$).

Conclusion :

- IL-17 has a significant effect on the pathogenesis of RA .
- IL-17 level is higher in normal people and people with RA receiving DMARDs compared to RA patients receiving biological treatment.
- In patients with biological treatment , these received TNF α inhibitor (Etanercept) has a high IL-17 level compared to these received CD20 inhibitor (Rituximab) .
- IL-17 can be used as a marker for RA activity.