

EVALUATION OF ACUTE PHASE PROTEINS AND ANTI-CYCLIC CITRULLINATED PEPTIDE (ANTI-CCP) LEVELS IN RHEUMATOID ARTHRITIS

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ABSTRACT : Rheumatoid arthritis (RA) considered autoimmune disease have an effect on various tissues, especially joints. To evade joint destruction, organ damage and disability; early diagnosis as well as treatment are the most suitable. The study the level of “anticyclic citrullinated peptide” (anti-CCP) in rheumatoid arthritis patients, in addition to study the relationship between the “anti-CCP” and the parameters of disease activity in “RA” patients were the aim of this study. Fifty-two “RA” patients compared with 40 controls were enrolled in this study. Sera were tested for “erythrocyte sedimentation rate” (ESR), “C-reactive protein” (CRP), “rheumatoid factor” (RF). “Anticyclic citrullinated peptide antibody” (anti-CCP) was determined by “Enzyme Linked Immunosorbent assay” (ELISA). High significant difference ($P < 0.01$) in the concentration of anti-ccp antibodies, RF, ESR and CRP between RA and control group. A significant correlation between Anti-CCP antibody level and ESR, CRP ($r = 0.59$, $P < 0.01$) among RA patients. But, no correlation between anti-CCP antibody and RF. Anti-ccp antibodies, rheumatoid factor, erythrocyte sedimentation rate and C-reactive protein may be the prognostication parameter of RA in the rheumatoid arthritis patients.

Key words : Anti-ccp antibodies, rheumatoid arthritis, RF, ELISA.

INTRODUCTION

“Rheumatic diseases” are considered health problems have an effect on people around the world, leading to destruction, deformities of joints and function disability (Scott and Tofacitinib, 2013; Haro and Sanmarti, 2013). RA affects approximately 1% of the world population, being more in women than men 2:1 to 3:1 (Viatte *et al*, 2013) in age between 40 and 60 years old, and it causes premature death (Vinary *et al*, 2013). Many studies have shown that the disease progresses rapidly during first two years of onset and can lead to irreversible erosive joint destruction (Combr, 2009). The mannerto avoiding joint destruction and organ damage required early diagnosis and treatment of “RA”, particularly in the early course of disease (O’Dell, 2005). Genetic and environmental factors play important role in development of clinical aspects of the disease, like many other diseases (Berglin *et al*, 2004). Genetic factors are linked with a series of genes that carry information that related with RA, particularly the HLA-DRB1 accounting for about one-third of the genetic risk of RA (Fauci and Langford, 2013). A decisive diagnosis of “RA” basis on articular indication of the disease, radiographic results, immunological markers as well as many of autoantibodies

have recently been associated with disease activity and/or prognosis of “RA” (Kasper *et al*, 2005). The RF is detected in approximately 50-80% of patients with RA. Elevated serum level of RF has been related to higher disease activity, radiographic progression, bone erosion and disease outcome (Matuszewkam *et al*, 2015). Rheumatoid factor remains one of the ACR classification criteria for RA, its diagnostic value is unsatisfactory, especially in early disease because other diseases such as “Sjogren syndrome”, “systemic lupus erythematosus”, “leprosy”, “hepatitis B”, “tuberculosis” even (5%) of healthy people have positive rheumatic factor. Over two decades, conclude that highest specificity of “RA” are autoantibodies that directed against proteins containing “citrulline epitopes”. These antibodies are called “ACPA” which first described as “anti-perinuclear factor antibodies” (APF) (Nienhuis *et al*, 1964). The anti-CCP antibodies are mainly of the IgG class, although IgM and IgA anti-CCP can also be detected (Rantapaa-Dahlqvist *et al*, 2003). Young *et al* (1979) was seen the sera of “RA” include antibodies that reacted to “layer of keratinized” of epithelial cell; named “antikeratin antibodies”, which only present in “RA” patients and suggest they have a role in pathogenesis of RA (van Venrooij and Pruijn, 2008). Many studies have pointed