

**Annual European Congress of Rheumatology  
(EULAR 2018)**

Amsterdam, The Netherlands, 13-16 June 2018

**RATES OF DEPRESSION AND ANXIETY MAY CORRELATE WITH DISEASE ACTIVITY  
IN EARLY RHEUMATOID ARTHRITIS**

Depression but not anxiety closely associated with inflammatory marker supporting link  
between depression and inflammation

**Amsterdam, The Netherlands, 15 June 2018:** The results of a study to be presented at the Annual European Congress of Rheumatology (EULAR 2018) suggest that rates of anxiety and depression in patients with rheumatoid arthritis correlate with measures of disease activity over the first year following diagnosis.<sup>1</sup>

Rheumatoid arthritis (RA) is a chronic inflammatory disease that affects a person's joints, causing pain and disability. It can also affect internal organs. RA is more common in older people, but there is also a high prevalence in young adults and adolescents. It affects women more frequently than men. High rates of depression and anxiety have been shown in patients with RA.<sup>2</sup>

"These results confirm both depression and anxiety as significant comorbidities at the time of rheumatoid arthritis diagnosis," said Professor Thomas Dörner, Chairperson of the Abstract Selection Committee, EULAR. "It is interesting to see the changes in anxiety and depression scores appear in tandem with disease activity over time, which requires further investigation."

The study included data from 848 patients and results showed significant reductions in anxiety from 19.0% to 13.4% ( $p=0.004$ ) and depression from 12.2% to 8.2% ( $p=0.01$ ) one year after RA diagnosis, this was in line with observed decrease in disease activity. Both depression and anxiety scores demonstrated significant correlation with disease activity scores (DAS28<sup>\*</sup>) at baseline, six months and at 12 months ( $p<0.0001$ ). In addition, change in DAS28 (final-baseline) also significantly correlated with change in both depression and anxiety scores at six months and 12 months.<sup>1</sup>

"Our results demonstrate a number of interesting associations with socioeconomic and other variables," said Dr George Fragoulis, honorary research fellow at the University of Glasgow (study author). "Most interestingly c-reactive protein, which is a blood test marker for inflammation, was highly associated with depression but not anxiety at all time points. This provides further support to compelling data linking inflammation and depression."

Investigators conducted statistical analysis to highlight potential associations between depression and anxiety scores and multiple variables at each time point. When looking at

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<sup>\*</sup> DAS28: disease activity score with 28 joints examined in this assessment.

anxiety scores, statistically significant associations were found with female gender, younger age, and patient global assessment score (PGA) at baseline. At six months and 12 months, significant association was demonstrated between anxiety scores and low body mass index (BMI), PGA and baseline anxiety scores. When looking at depression scores, significant associations were found with PGA at baseline. At six months and 12 months, depression score was significantly associated with PGA, c-reactive protein (CRP) levels as well as baseline depression and anxiety scores.

The study used data from patients in the Scottish Early Rheumatoid Arthritis (SERA) cohort of newly diagnosed patients with RA. Patients had been followed-up every six months following diagnosis and tested for pre-specified clinical, laboratory and psychosocial features. This included anxiety and depression which was measured using the hospital anxiety and depression score.

**Abstract number: OP0350**

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#### **NOTES TO EDITORS**

**For further information on this study, or to request an interview with the study lead, please do not hesitate to contact the EULAR Press Office:**

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#### **About Rheumatic and Musculoskeletal Diseases**

Rheumatic and musculoskeletal diseases (RMDs) are a diverse group of diseases that commonly affect the joints but can affect any organ of the body. There are more than 200 different RMDs, affecting both children and adults. They are usually caused by problems of the immune system, inflammation, infections or gradual deterioration of joints, muscle and bones. Many of these diseases are long term and worsen over time. They are typically painful and limit function. In severe cases, RMDs can result in significant disability, having a major impact on both quality of life and life expectancy.<sup>3</sup>

#### **About 'Don't Delay, Connect Today!'**

'Don't Delay, Connect Today!' is a EULAR initiative that unites the voices of its three pillars, patient (PARE) organisations, scientific member societies and health professional associations - as well as its international network - with the goal of highlighting the importance of early diagnosis and access to treatment. In the European Union alone, over 120 million people are currently living with a rheumatic disease (RMD), with many cases undetected.<sup>4</sup> The 'Don't Delay, Connect Today!' campaign aims to highlight that early diagnosis of RMDs and access to treatment can prevent further damage, and also reduce the burden on individual life and society as a whole.

## About EULAR

The European League against Rheumatism (EULAR) is the European umbrella organisation representing scientific societies, health professional associations and organisations for people with RMDs. EULAR aims to reduce the burden of RMDs on individuals and society and to improve the treatment, prevention and rehabilitation of RMDs. To this end, EULAR fosters excellence in education and research in the field of rheumatology. It promotes the translation of research advances into daily care and fights for the recognition of the needs of people with RMDs by the EU institutions through advocacy action.

To find out more about the activities of EULAR, visit: [www.eular.org](http://www.eular.org).

## References

<sup>1</sup> Fragoulis GE, Cavanagh J, Derakhshan MH, *et al.* Depression and anxiety in an early rheumatoid arthritis inception cohort. Associations with epidemiological, socioeconomic and disease features. EULAR 2018; Amsterdam: Abstract OP0350.

<sup>2</sup> Covic T, Cumming SR, Pallant JF, *et al.* Depression and anxiety in patients with rheumatoid arthritis: prevalence rates based on a comparison of the Depression, Anxiety and Stress Scale (DASS) and the hospital, Anxiety and Depression Scale (HADS). *BMC Psychiatry*. 2012;12:6.

<sup>3</sup> van der Heijde D, *et al.* Common language description of the term rheumatic and musculoskeletal diseases (RMDs) for use in communication with the lay public, healthcare providers and other stakeholders endorsed by the European League Against Rheumatism (EULAR) and the American College of Rheumatology (ACR). *Annals of the Rheumatic Diseases*. 2018;doi:10.1136/annrheumdis-2017-212565. [Epub ahead of print].

<sup>4</sup> EULAR. 10 things you should know about rheumatic diseases fact sheet. Available at: <https://www.eular.org/myUploadData/files/10%20things%20on%20RD.pdf> [Last accessed April 2018].