



# eular

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## Annual European Congress of Rheumatology (EULAR) 2017

Madrid, Spain, 14-17 June 2017

### **PREVIOUS BACTERIAL INFECTION INCREASES RISK OF NEWLY-DIAGNOSED SJÖGREN'S SYNDROME**

Identifying trigger will hopefully help future development of targeted therapy for patients suffering from this debilitating disease

**Madrid, Spain, 14 June 2017:** The results of a study presented today at the Annual European Congress of Rheumatology (EULAR) 2017 have shown a link between newly-diagnosed Sjögren's syndrome (SjS) and previous infection with nontuberculous mycobacteria (NTM).<sup>1</sup>

However, even though an increased risk of tuberculosis (TB) has been found in patients with SjS,<sup>2</sup> in this study, TB infection itself did not appear to be associated with an increased risk of going on to develop SjS.<sup>1</sup>

Patients newly diagnosed with primary SjS (in people with no other rheumatic disease) were around 11 times more likely to have had a prior infection with NTM than a matched group of controls. The magnitude of the association between NTM and SjS risk was greatest among those patients aged between 45 and 65 years.<sup>1</sup> No association was found between SjS and a previous TB infection.<sup>1</sup>

“Although the exact disease mechanism behind SjS remains elusive, a variety of environmental, genetic and hormonal factors have been linked with the development and different manifestations of this debilitating disease,” said lead author Dr. Hsin-Hua Chen from the Taichung Veterans General Hospital, Taiwan, Province of China. “Identifying NTM as one of the triggers will hopefully provide a clue to the future development of a targeted therapy for these patients,” he added.



After excluding those SjS patients who had rheumatoid arthritis (RA) and systemic lupus erythematosus (lupus), an association was observed between NTM infection (Odds Ratio, 11.24; 95% confidence intervals, 2.37–53.24) and SjS among 5,751 newly diagnosed cases compared to 86,265 non-SjS patients matched for age, sex, and year of first diagnosis. The diagnosis of NTM was established using ICD9-CM disease codes, as well as the prescription of NTM related anti-bacterial medication. The association was quantified after adjusting for the Charlson comorbidity index\* and bronchiectasis†.

“Because SjS is a disease of insidious onset, we can't exclude the possibility that it may have occurred before the NTM infection. In our study, of the seven subjects with NTM infection later diagnosed with SjS, three of them were diagnosed within three months of NTM infection, indicating the potential co-existence of these two diseases. However, the other four subjects were diagnosed on average 2.9 years after NTM infection.

“The significant association between NTM infection and newly diagnosed SjS demonstrated in our study certainly supports the need to screen for the presence of SjS in any patient previously infected with NTM to enable prompt diagnosis and treatment,” Dr. Chen concluded.

SjS is an immune mediated chronic inflammatory disease where the body's immune system attacks glands that secrete fluid, such as the tear and saliva glands.<sup>3</sup> Inflammation within the glands reduces fluid production causing painful burning in the eyes, dry mouth, and sometimes dryness in the nasal passages, throat, vagina and skin.<sup>3</sup>

Primary SjS occurs in people with no other rheumatic disease; secondary SjS occurs in people who have another rheumatic disease, most often lupus and RA.<sup>3</sup> The worldwide prevalence of primary SjS has been estimated at about 0.2% of the adult population.<sup>4</sup>

This condition can affect people of any age, but symptoms usually appear between the ages of 45 and 55. It affects 10 times as many women as men. About half of patients also have RA or other connective tissue diseases, such as lupus.<sup>3</sup>

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**-ENDS-**

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\* A widely used, standardised method for classifying comorbid conditions such as cancer, heart disease and AIDs, which increase the risk of one-year mortality

† long-term condition where the airways become abnormally widened, leading to a build-up of excess mucus making the lungs more vulnerable to infection



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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 congress Press Office in the Goya Room at the IFEMA, Madrid during EULAR 2017 or on:**

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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 also affect the muscles, other tissues and internal organs. 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.

### **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 Europe alone, over 120 million people are currently living with a rheumatic disease (RMD), with many cases undetected. 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 an umbrella organisation which represents scientific societies, health professional associations and organisations for people with rheumatic and musculoskeletal diseases throughout Europe. EULAR aims to reduce the burden of rheumatic and musculoskeletal diseases on individuals and society and to improve the treatment, prevention and rehabilitation of rheumatic and musculoskeletal diseases. To this end, EULAR fosters excellence in education and research in the field of rheumatology. It promotes the translation of research advances



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into daily care and fights for the recognition of the needs of people with musculoskeletal diseases by the governing bodies in Europe through advocacy action.

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

## References

- <sup>1</sup> Chen H-H, Chao W-C, Liao T-L, *et al.* Association between a history of mycobacterial infection and the risk of Sjögren's syndrome: a nationwide, population-based case-control study. EULAR 2017; Madrid: Abstract OP0074
- <sup>2</sup> Chang YS, Liu CJ, Ou SM, *et al.* Tuberculosis infection in primary Sjögren's syndrome: a nationwide population-based study. *Clin Rheumatol* 2014; 33 (3): 377-383
- <sup>3</sup> <https://www.rheumatology.org/I-Am-A/Patient-Caregiver/Diseases-Conditions/Sjogrens-Syndrome> [Accessed 11 May 2017]
- <sup>4</sup> Westhoff G, Zink A. [Epidemiology of primary Sjögren's syndrome]. *Z Rheumatol.* 2010; 69(1): 41-9. doi: 10.1007/s00393-009-0518-3.