Sjogren's syndrome significantly increases risk of heart attack

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A new study presented today at the European League Against Rheumatism Annual Congress (EULAR 2014) showed a significantly increased risk of heart attack in patients with Sjögren's syndrome (SjS), particularly in the first year following diagnosis.[1] There was also a trend towards an increased risk for stroke.

SjS is an auto-immune inflammatory disease where the body's immune system attacks glands that secrete fluid, such as the tear and saliva glands.[2] 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. Primary SjS occurs in people with no other rheumatological disease; secondary SjS occurs in people who have another rheumatological disease, most often systemic lupus erythematosus (SLE) and rheumatoid arthritis (RA). The worldwide prevalence of primary SjS has been estimated at about 0.2% of the adult population, and is thought to affect at least nine times as many women as men.[3] Estimates of the prevalence of SjS in patients with RA and SLE vary from 30% and 110% respectively.

According to the principal investigator of the study, Dr. Antonio Aviña-Zubieta, a research scientist at the Arthritis Research Centre of Canada and an Assistant Professor of the Department of Medicine - Division of Rheumatology, University of British Columbia, Vancouver, Canada, "it is the acute inflammatory state in Sjögren's syndrome, particularly at the onset of the disease, which is likely to be the main driver for the increased risk of heart attacks and stroke.

"This is the first general population-based cohort study comparing the relative risk of heart attacks and strokes in patients with new Sjögren's syndrome with age, sex, and entry-matched controls; previously we only had limited data on the relative risks in this specific patient group.

"Our results support the role of inflammation in cardiovascular disease and the need for increased monitoring for coronary artery disease in all patients with this condition, in addition to proper management and modification of their cardiovascular risk factors to reduce the risk of a future heart attack," Dr Aviña-Zubieta the Principal Investigator of the study concluded.

Looking first at the heart attacks, out of 1,176 new cases with SjS, 28 developed a first time heart attack, with an incident rate of 7.7 per 1,000 person-years. Among 11,879 non-SjS matched controls, 138 had a heart attack, with an incident rate of 3.5 per 1,000 person-years.

The results for the stroke cohorts showed that, among 1,195 with new SjS, 19 developed a first-time stroke, with an incident rate of 5.1 per 1,000 person-years. Out of 11,983 non-SjS matched controls, 137 had a CVA event, with an incident rate of 3.4 per 1,000 person-years.

Compared with the age, sex and entry matched controls, the relative risks for heart attack and stroke events were 2.2 (95% CI 1.41- 3.32) and 1.5 (0.9- 2.4), respectively. Adjusting for other relevant risk factors for cardiovascular disease including medications made no significant difference to the relative risk of patients with SjS developing either heart attacks 2.4 (1.5– 3.8) or stroke 1.6 (1.0- 2.8). The risk of developing a heart attack was highest within the first year following diagnosis of SjS (3.6 times), and persisted up to five years following the initial diagnosis. This trend was not seen for strokes.

This was a retrospective matched cohort study with new SjS patients

satisfying at least one of the following criteria: diagnosis of SjS (ICD-9-CM code 710.2, ICD-10-CM code M35.0) in adults on at least two visits at least two months apart and within a two-year period between 1996 and 2010 by a non-rheumatologist physician diagnosis of SjS on at least one visit by a rheumatologist or from hospitalisation. cases with diagnostic codes for SjS between 1990 and 1995 were excluded with the intention to select only new SjS cases.

Incident heart attack and stroke events were recorded based on hospitalisation or death certificate. To estimate relative risks, SjS patients were compared with age-, sex- and entry time-matched comparison cohorts, adjusting for potential cardiovascular risk factors. Ten non-SjS controls matched by birth year, sex and calendar year of follow-up were selected from the general population for each case of SjS.

More information: [1]Yurkovich M, Sayre EC, Shojania K, Avina-Zubieta A. The risk of myocardial infarction and cerebrovascular accident in patients with Sjögren's syndrome: a general population-based cohort study. EULAR 2014; Paris: OP0212

[2]Wise C. Sjögren's Syndrome. American College of Rheumatology. www.rheumatology.org/Practice/ … es_And_Conditions/Sj%C3%B6gren_s_Syndrome/ [Accessed 05/06/2014]

[3] Westhoff G, Zink A. Epidemiology of primary Sjörgren's syndrome. Z Rheumatol. 2010; 69(1): 41-9 4 Borchers, A. T., Naguwa, S. M., Keen, C. L. & Gershwin, M. E. Immunopathogenesis of Sjögren's syndrome. *Clin. Rev. Allergy Immunol* 2003; (1):89-104

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