REFERENCES:

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SAT0683

A NORTH-SOUTH WORLDWIDE GRADIENT IN SYSTEMIC ACTIVITY OF PRIMARY SJÖGRÖN SYNDROME: INCREASED SEVERE DISEASE IN PATIENTS FROM SOUTHERN COUNTRIES

S. Retamozo1,2,3, N. Acar-Denzlí4, W. Fai Ng5, M. Zeher6, A. Rasmussen7, R. Serø9, X. Li7, C. Baidini10, J.-E. Gottenberg11, D. Dandia11, L. Quartiuccio12, R. Priori13, G. Hernandez-Molina14, A.A. Kruize15, S.-K. Kwok16, M. Wohren-Henriksen17, S. Prapornki18, D. Sorensen19, B. Bartopoli18, P. Solan18, M. Rischmueller16, T. Mandl20, Y. Suzuki21, D. Isenberg22, V. Välim23, P. Wiland22, H. Vall d’Hebron, Barcelona, Spain; 2Hospital Privado Córdoba, IUCBC; 3INICSA, UNC, CONICET, Cordoba, Argentina; 4Mimar Sinan Unvan, Istanbul, Turkey; 5Newcastle University, NHS Foundation Trust, Newcastle, UK; 6Umeå University, Umeå, Sweden; 7The Hebrew University, Jerusalem, Israel; 8Karolinska Institute, Stockholm, Sweden; 9Northwestern University, Chicago, Illinois; 10Hospitales del Sur, Buenos Aires, Argentina; 11Christian Medical College and Hosp, Vellore, India; 121H. Clinic, IDIBAPS, Barcelona, Spain; 131,1,1 Haukeland Univ Hosp, Bergen, Norway; 142Division of Allergy, Immunology and Rheumatology, 3Department of Internal Medicine, Taichung Veterans General Hospital, Taichung, Taiwan, Province of China

Background: Previous studies suggested that patients with systemic sclerosis (SSc) had specific alterations in the gastrointestinal microbiota, including increased levels of pathobiont genera, such as Fusobacterium. Local expansion of Fusobacterium was also found in children with acute appendicitis. However, no prior study explored the association between infection and SSc risk.

Objectives: To explore the association between appendicitis and the risk of incident systemic sclerosis (SSc).

Methods: Using the 2003–2012 claims data of the entire population in Taiwan, we identified 1595 patients with a new diagnosis SSc (ICD-9-CM 710.1) validated by a thorough review of the original medical record from 2006 to 2012 as SSc cases. We also selected 15,950 individuals who never had a diagnosis of SSc during 2003–2012 matching SSc cases (1:10) for age, sex, and the year of index date from claims data of a one million representative Taiwanese population as non-SSc controls. The index date was defined the first date of SSc diagnosis in the SSc group and the first date of ambulatory visit for any reason in the control group. Using conditional logistic regression analysis, the association between appendicitis (ICD-9-CM 540–543) and the risk of incident SSc was tested by estimating odds ratios (ORs) with 95% confidence intervals (CIs) controlling for potential confounders, including Charlson comorbidity index, a history of periodontal disease (ICD-9-CM 532), salmonella infection (ICD-9-CM 009), and intestinal infection (ICD-9-CM 009). We also performed sensitivity analyses by varying the definition of appendicitis according to the status of receiving primary appendectomy.

Results: The mean ± SD age was 51±15 years in both cases and controls. The proportion of women was 77.5%. Appendicitis was identified in 17 (1.1%) of 1595 SSc cases and 81 (0.5%) of 15,950 non-SSc controls before the index date had a history of appendicitis. A significant association between appendicitis and the risk of SSc was demonstrated (OR, 2.03; 95% CI, 1.14–3.60) after adjustment for potential confounders, including Charlson comorbidity index, a history of periodontal disease (ICD-9-CM 532), salmonella infection (ICD-9-CM 009), and intestinal infection (ICD-9-CM 009). We also performed sensitivity analyses by varying the definition of appendicitis according to the status of receiving primary appendectomy.

Conclusions: This study provides the first evidence for a strong influence of geolocation on the systemic phenotype of primary SjS in diagnosis. Geographical determinants should be considered as key variables when systemic disease is scored.

Disclosure of Interest: None declared

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APPENDICITIS AND THE RISK OF NEWLY DIAGNOSED SYSTEMIC SCLEROSIS: A NATIONWIDE, POPULATION-BASED, CASE-CONTROL STUDY IN TAIWAN

H.-H. Chen1,1,1, K.-L. Lai1, D.-Y. Chen3,1

1Division of Allergy, Immunology and Rheumatology, 2Department of Medical Research, 3Division of General Medicine, Taichung Veterans General Hospital, Taichung, Taiwan, Province of China

Background: Systemic sclerosis (SSc) had specific alterations in the gastrointestinal microbiota, including increased levels of pathobiont genera, such as Fusobacterium. Local expansion of Fusobacterium was also found in children with acute appendicitis. However, no prior study explored the association between incident SSc and prior appendicitis.

Objectives: To explore the association between appendicitis and the risk of incident systemic sclerosis (SSc).

Methods: Using the 2003–2012 claims data of the entire population in Taiwan, we identified 1595 patients with a new diagnosis SSc (ICD-9-CM 710.1) validated by a thorough review of the original medical record from 2006 to 2012 as SSc cases. We also selected 15,950 individuals who never had a diagnosis of SSc during 2003–2012 matching SSc cases (1:10) for age, sex, and the year of index date from claims data of a one million representative Taiwanese population as non-SSc controls. The index date was defined the first date of SSc diagnosis in the SSc group and the first date of ambulatory visit for any reason in the control group. Using conditional logistic regression analysis, the association between appendicitis (ICD-9-CM 540–543) and the risk of incident SSc was tested by estimating odds ratios (ORs) with 95% confidence intervals (CIs) controlling for potential confounders, including Charlson comorbidity index, a history of periodontal disease (ICD-9-CM 532), salmonella infection (ICD-9-CM 009), and intestinal infection (ICD-9-CM 009). We also performed sensitivity analyses by varying the definition of appendicitis according to the status of receiving primary appendectomy.

Results: The mean ± SD age was 51±15 years in both cases and controls. The proportion of women was 77.5%. Appendicitis was identified in 17 (1.1%) of 1595 SSc cases and 81 (0.5%) of 15,950 non-SSc controls before the index date had a history of appendicitis. A significant association between appendicitis and the risk of SSc was demonstrated (OR, 2.03; 95% CI, 1.14–3.60) after adjustment for potential confounders. The association between appendicitis and SSc risk was still statistically significant using various definitions of tonsillitis based on the status of primary appendectomy.

Conclusions: This study provides the first evidence for a strong influence of geolocation on the systemic phenotype of primary SjS in diagnosis. Geographical determinants should be considered as key variables when systemic disease is scored.

Disclosure of Interest: None declared

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Disclosure of Interest: None declared

Conclusions: This study provides the first evidence for a strong influence of geolocation on the systemic phenotype of primary SjS in diagnosis. Geographical determinants should be considered as key variables when systemic disease is scored.

Disclosure of Interest: None declared

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