Davis, California, USA; ⁷Department of Biomedicine, Division of Rheumatology, University of Florence, Florence, Italy; ⁸Center for Autoimmune Diseases Research, Corporación para Investigaciones Biológicas, Rosario University Medellín, Colombia; ⁹Faculty of Agricultural, Food and Environmental Quality Sciences, The Hebrew University of Jerusalem; ¹⁰Incumbent of the Laura Schwarz-KipChair for Research of Autoimmune Diseases, Tel-Aviv University, Israel

10.1136/ard.2010.129577t

Background and Aim Bacteria, viruses and parasites are often thought to be environmental triggers inducing or promoting autoimmune disorders. Toxoplasmosis is a parasitic disease caused by protozoan *Toxoplasma gondii*. The association of this infectious agents and autoimmunity has rarely been reported therefore, in order to evaluate the possible role of Toxoplasmosis in various autoimmune diseases the authors assessed serological evidence of recent and past-infection with *Toxoplasma gondii* of patients with AIDs.

Methods The authors analysed sera originating from nearly 2000 patients with various autoimmune diseases such as anti-phospholipids syndrome (APS), various types of vasculitis, thyroid autoimmune diseases, inflammatory bowel disease (IBD), systemic sclerosis, systemic lupus erythematosus (SLE), Sjörgen syndrome, primary biliary cirrhosis (PBC), pemphigus vulgaris, multiple sclerosis, polymyositis and rheumatoid arthritis (RA), as well as 437 geographically and sex-matched healthy controls. All sera were tested for the prevalence and titers of *Toxoplasma gondii* IgG and IgM utilising the Bio-Rad BioPlex 2200 system (Hercules, California, USA).

Results Higher prevalence of anti-Toxoplasma-antibodies (IgG) were associated with systemic sclerosis ($p<0.0001$), primary and secondary APS ($p<0.0001$), PBC ($p<0.0001$), thyroid autoimmune diseases ($p<0.0001$), pemphigus vulgaris ($p<0.0001$) and vasculitis compared to controls. Interestingly, there was a significantly higher prevalence of *Toxoplasma* antibodies in European RA patients compared with Colombian ones. In contrast the prevalence of anti-Toxoplasmosis antibodies was similar to controls in polymyositis, Churg-Strauss vasculitis, SLE, Sjörgen syndrome, multiple sclerosis and IBD. As regarding a serological evidence of IgM, the authors found significantly higher prevalence of IgM anti-Toxoplasma antibodies in patients with IBD ($p<0.05$), primary and secondary APS ($p<0.01$), systemic sclerosis ($p<0.05$) and Hashimoto's thyroiditis ($p<0.05$).

Conclusion Our findings indirectly imply *Toxoplasma gondii* playing a role in pathogenesis of several autoimmune diseases whereas in others no association was observed.

A20 PREVALENCE OF TOXOPLASMA ANTIBODIES AMONG PATIENTS WITH VARIOUS AUTOIMMUNE DISEASES

J Petříková,¹ N Agmon-Levin,^{1,2} Y Shapira,¹ O Barzilai,¹ M Ram,¹ B Gilburd,¹ C Selmi,³ B Nicola,⁴ B Larida,⁵ M E Gershwin,⁶ G Valentini,⁷ M Matucci-Cerini,⁷ J-M Anaja,⁸ B-S P Katz,⁹ M Blank,¹ Y Shoenfeld^{1,2,10} ¹Center for Autoimmune Diseases Sheba Medical Center, Israel; ²Department of Medicine 'B', Sheba Medical Center, Tel-Hashomer, Israel; ³Department of Internal Medicine, IRCCS Istituto Clinico Humanitas, University of Milan, Italy; ⁴Laboratorio di Patologia Clinica, Ospedale Civile, 30027 S. Donà di Piave (VE), Italy; ⁵Bio-Rad Laboratories, California, USA; ⁶Division of Rheumatology, Allergy and Clinical Immunology, University of California at Davis School of Medicine,