subtypes, specialized software named Protein Reader with implemented Dust algorithm have searched through the NCBI nr database, that contains the records of more than 400 E coli subtypes. The median age of patients was 7.14 and 7.11, respectively.

Various E coli subtypes (P0301867.1-10, O104:H4, O103: H25, O111:H11, KTE and K) were three times more abundant in patients with JIA, while in children with ReA, the abundance of diarrheagenic E. coli (DEC) was detected.

Many studies have speculated the influence of gut microbiota in the development of arthritis in children. Despite the technological advancements in the examination of microbiota composition, there are still many limitations imposed by patient selection, methodology and data analysis.

Besides, without the proper definition of ‘healthy’ microbiome as a reference standard, it is challenging to distinguish alterations responsible for diseases development. In our proof-of-the-concept study microbiota was therefore compared in two groups of patients both presenting with arthritis.

Since E coli is one of the paramount bacteria in gut microbiota with more than 600 recognized subtypes, it is reasonable to assume that described differences can have a potential impact on the gut environment, with the contribution to the development of the chronic disease in JIA patients or the resolution of symptoms in children with ReA. While this observation needs confirmation in multiple time points and larger patient cohorts, it pinpoints gut microbiota as a potential new therapeutic target in the treatment of chronic inflammatory diseases.

LONG TERM FOLLOW-UP OF THE PATIENTS WITH ANTI NUCLEAR ANTIBODY POSITIVITY WHO HAD INITIALLY NO IDENTIFIABLE RHEUMATIC DISEASES

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Anti-nuclear antibodies (ANA) are a group of the antibodies that develop against intracellular components of the cells. It is usually useful for diagnosing some of the connective tissue diseases like systemic lupus erythematosus, mixed connective tissue disease.

But it is reported that its positivity rate is about in healthy individuals.

Therefore, it can be confusing to check ANA test, if there is not really high suspicion for connective tissue diseases or juvenile idiopathic arthritis.

We aimed to evaluate results of long-term follow-up of the patients with ANA positivity who had initially no identifiable rheumatic diseases.

Six hundred and ninety-four patients with ANA positivity who did not diagnosed as any of the rheumatic diseases at the first examination were found in database. Two hundred and eightytwo patients of them were called so far and questioned about their demographic features and symptoms that are related with rheumatic diseases.

Mean age of the patients at the time of study and at the time of testing were 13.4± 4.5 and 9.1±4.0 years. The female: male ratio was 1.05. Mean follow-up duration was 4.3±2.8 years. Most common reasons for the request for ANA test were arthralgia (n:99 (D.1)) and skin eruptions (n: 54 (24.1)). ANA testing was most commonly requested by a general pediatricians.

Most of the diseases (Hypermobility Syndrome, Urticaria, Hypothyroidism, Transient synovitis, Idiopathic Thrombocytopenic Purpura, Scoliosis) were diagnosed in patients with ANA positivity were not related with autoimmune mechanisms that associated with ANA positivity therefore, these diseases are thought to be coincidence. Only in 1 patients, systemic lupus erythematosus that has certain association with ANA positivity were diagnosed.

We are reporting that in only 0.3% of patients with ANA positivity who don’t have any diseases diagnosed initially, were diagnosed as rheumatologic diseases during to the follow-up period.

Since positivity of ANA is also common in the healthy population, requesting this test in only patients with high suspicion for connective tissue disease will reduce confusion in terms of diagnosis.