Methods: We collected characteristics of all patients coming for inflammatory rheumatism in our rheumatology department between April 2010 and December 2016. All of them had systematically routine examination, immunological tests, lymphocyte subsets in peripheral blood by flow cytometric analysis. We selected among this population those patients who also had PCR for *TW* for suspicion of WD, and compared the distribution of lymphocyte subsets of those with and without WD. Then, we evaluated their diagnostic value for WD using a ROC curve.

Results: Among 3494 patients with inflammatory rheumatism, 121 patients (212 visits) had a suspicion of WD and the diagnosis of WD was retained by an expert rheumatologist for 9 (7.4%) (22 visits). T cells and NK cells were not different whereas percentage of circulating memory B cells (IgD⁺CD38^{low}) was lower ($18.0\pm 9.7\%$ vs $26.0\pm 14.2\%$, $p=0.041$) and the ratio of activated B cells to memory B cells higher (4.4 ± 2.0 vs 2.9 ± 2.2 , $p=0.023$), in patients compared with controls. More precisely, the analysis of the frequency of peripheral blood B cells showed that IgD⁺CD27⁺ naïve B cells were higher ($66.2\pm 18.2\%$ vs $54.6\pm 18.4\%$, $p=0.047$) and IgD⁺CD27⁺ switched memory B cells lower ($13.3\pm 5.7\%$ vs $21.4\pm 11.9\%$, $p=0.023$), in patients compared with the controls. The best diagnostic value was obtained for the IgD⁺CD27⁺ naïve B cells (cut off 70.5, sensitivity 73%, specificity 80%).

Conclusions: Our study provides data on blood B cells disturbances and a first step towards understandings of immunological abnormalities in WD. These disturbances provide guidance for diagnosis and allow physiopathological hypothesis.

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SAT0404

CLINICAL CHARACTERISTICS AND OUTCOME AFTER TREATMENT OF A NATIONAL COHORT OF PCR-POSITIVE LYME ARTHRITIS

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Background: Lyme arthritis (LA) is a disseminated *Borrelia* infection whose prevalence is lower in Europe than in the USA, probably because of difference in *Borrelia* species ecology. Few data concerning treatment efficacy and long-term outcome of LA in Europe are available.

Objectives: The aim of our study was to describe clinical characteristics and treatment outcomes of a national cohort of patients with LA confirmed with synovial fluid PCR.

Methods: We conducted a retrospective observational study using the French Borrelia reference centre database. Patients presenting with a PCR positive for *Borrelia* DNA in their synovial fluid between 2011 and 2016 were included. PCR-positive patients were offered by their referring physician to participate to a standardised telephonic interview. Patients' medical files were also retrieved. The main objectives were to describe patient characteristics, disease presentation and outcomes after antibiotic treatment.

Results: Between 2011 and 2016, among 358 synovial fluids tested at the national reference centre, 38 were positive for *Borrelia* DNA. Among these patients, 35 were contacted (3 missing contact information). Median age was 36 years with 31% minors and 63% men. Tick exposure was reported by 88% patients whereas tick bite and erythema migrans were only reported in 40% (10/25) and 14% (3/21), respectively. The presentation was monoarticular in 91% (32/35) cases and oligoarticular in others. The knee was involved in 97% (34/35) cases and 21% presented fever. The diagnosis was often delayed with a median time from symptom onset to diagnosis of 3 months (range 1 to 112). The serology performed before or at the time of the PCR testing was IgG positive in all cases but only in IgM positive in 40%. All positive IgG serologies were also positive with Western-Blot. In the synovial fluid, the identified species of *Borrelia* were *B. burgdorferi sensu stricto*, *B. garinii* and *B. afzelii* in 54%, 29% et 17% of cases, respectively. Antibiotics prescribed were mostly doxycycline and ceftriaxone in 17 and 9 patients, respectively, sometime in combination. Follow-up data were available for 26 patients with a median follow-up time of 27 months (range 1–73). Full recovery was reported by 62% patients whereas 6 presented persistent non-inflammatory articular pain of the affected joint. One patient reported a chronic pain syndrome without objective sign of persistent infection (including a negative synovial fluid PCR). Three patients developed chronic inflammatory arthritis leading to the introduction of DMARDs.

Conclusions: Our study reports original data on Lyme arthritis in France. Treatment outcomes are usually good but a significant proportion of patients may develop chronic inflammatory arthritis.

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SAT0405

FINDINGS OF A COHORT OF PATIENTS WITH CHIKUNGUNYA IN A COLOMBIAN POPULATION

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Background: Chikungunya virus is a Togaviridae family virus transmitted by mosquitoes, which generates febrile syndrome with joint pain. It has been widely studied for the findings of chronic inflammatory polyarthropathy similar to rheumatoid arthritis. In Colombia, an epidemic occurred between 2014 and 2015, which was studied in several cities. International meta-analyses have shown a prevalence of 32.13% in the follow-up cohorts greater than 18 months. At present, this issue has gained a new opportunity due to the appearance of new outbreaks in Italy and France, after 10 years of the first epidemic.

Objectives: To compare the clinical findings of a cohort of patients with Chikungunya in the subacute phase and the chronic phase.

Methods: Follow-up of 70 patients who attended Chikungunya in a Colombian population who were evaluated in person by a rheumatologist, initially at 40 days after the disease and after two years.

Results: The average age of the study participants was 59.88 years, being more frequent in women with 78.6% of the cases. 40% of the cases were older than 65 years, with the older adult population being a representative part of the cases. The history of osteoarthritis occurred in 11.7% of cases. There was no history of systemic lupus erythematosus.

The most frequent symptoms presented at the first visit (outbreak context) were as follows, in order: Joint pain (71.4%), morning stiffness (48.6%), Metacarpophalangeal compression test (51.2%). The most frequent symptoms in the second visit (two years after the outbreak) were: joint pain (74.2%), morning stiffness (21.4%) and metacarpophalangeal compression test (17.1%).

At the time of the second visit, the clinical findings were classified by diseases, according to the rheumatologist's assessment as follows: Post-Chikungunya polyarthropathy (17.1%), Fibromyalgia (10%), Carpal tunnel syndrome (17.1%), Osteoarthritis of knees (32.8%), osteoarthritis of distal interphalangeal (20%), painful shoulder syndrome (17.1%), tenosynovitis (18.6%), gout (1.4%), sequelae of fracture of hip (1.4%), lateral epicondylitis (1.4%). 28.5% of the cases had no diagnosis of rheumatological pathology. Of the total cases, only 24.3% (17 people) had symptoms for more than 6 weeks.

Conclusions: Chikungunya virus infection increases the prevalence of joint and extra-articular rheumatological diseases in the Colombian population evaluated.

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SAT0406

CHIKUNGUNYA VIRUS AND THE RHEUMATOLOGY: OBSERVATION OF 76 CASES DURING AN EPIDEMIC IN BRAZIL

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Background: Chikungunya fever is caused by a virus of the family Togaviridae and the genus Alphavirus. The first epidemic occurred in Africa in 1952, transmitted by mosquitoes of the genus *Aedes*. In Brazil, the first cases were registered in 2014. Clinical manifestations include fever, polyarthralgia, joint oedema, arthritis and morning stiffness.

Diagnosis is confirmed by IgM/IgG serology for Chikungunya. The persistence of joint symptoms for a long time is an important feature of the disease.