correlated with vertebral destruction, for this reason, patients with this finding should be more carefully follow-up.

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SAT0401 RISK OF HOSPITAL ADMISSION DUE TO SEVERE INFECTION IN PATIENTS UNDER TREATMENT WITH ANTI-TNF DRUGS: DATA FROM A LOCAL REGISTRY

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Objectives: To Know characteristics of patients treated with anti-TNF, who suffered infections that forced hospital admission.

Methods: Prospective observational study in patients treated with anti-TNF, during 1/1/2000 to 12/31/2017, followed up in the Rheumatology Section. General data of patients (age, gender), of disease (diagnosis and time of evolution, type of anti-TNF, time in anti-TNF, concomitant treatment with DMARD), regarding the presence of severe infection, defined as infection that required hospital admission (time in anti-TNF to infection, location of infection, days of admission, mantoux/IGRAS and vaccinations prior to the start anti-TNF treatment) was collected. The admission decision was made by Emergency Department of centre or Rheumatology.

Results: Of 442 patients with anti-TNF, 44 (9.6%) patients had at least one hospital admission due to severe infection. 59% were women, with mean age 64±16.72 years, 22–88 21.25±4.02 years of disease evolution. A mantoux/IGRAS was performed prior anti-TNF. Diagnosis was: rheumatoid arthritis (RA): 25 (57%), ankylosing spondylitis (AS): 12 (27%), psoriatic arthritis (PSA): 5 (11%) and juvenile idiopathic arthritis (JIA): 2 (5%). The mean time of treatment with anti-TNF is 5.6 ±4.5 years. Adalimumab received 24 (55%) patient, infliximab 8 (18%) patients, etanercept 6 (14%) patients, golimumab 5 (11%) and 1 (2%) certolizumab.

Of the 55 confirmed infections: non-pneumonic infection in 13 (24%) patients, pneumonia: 10 (18%), septic arthritis: 6 (11%), septic shock and/or bacteremia: 6 (11%), abscess: 4 (7%), urinary infections: 4 (7%), cellulitis: 3 (5%), cutaneous leishmaniasis: 3 (5%), acute gastroenteritis: 2 (4%), surgical wound infection: 1 (2%), cutaneous infection: 1 (2%), Septic bursitis: 1 (2%), gonorrhoea: 1 (2%). The mean time of hospital admission was 9.76 days. Three (7%) patients presented the infection within a year of starting treatment.

The rate of severe infection x100 patients/year of exposure is 2.01 (1.47–2.67). The odd ratio of admission for infection of 3.67 (1.11–4.87, p=0.03). The risk of admission for infection in patients with peripheral arthritis (RA, PSA, JIA) is 2.42 (1.21–3.11) times higher than in patients with AS (p=0.012).

In the table 1, the Odd ratio of income for infection distributed by anti-TNF drug is shown.

Anti-TNF	N° patients	Odds ratio (IC 95%)
Infliximab	101	8.01 (4.99–12.05)
Golimumab	82	5.68 (2.95–9.73)
Certolizumab	33	3.25 (0.54–10.03)
Adalimumab	239	3.03 (2.08–4.22)
Etanercept	188	2.44 (1.48–3.76)

Conclusions: 1. The severe infection rate x100 patients/year of exposure is 2.01 and the prevalence is 9.6%. 2. The majority of severe infection occurred late, after more than 1 year of treatment. 3. The most frequent infection were those of respiratory origin, followed by sepsis or bacteremia and septic arthritis. 4. Etanercept has presented the lowest rate of severe infection. 5. Patients with AS have a lower risk of severe infection than patients with chronic peripheral arthritis.

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SAT0402 LEISHMANIASIS IN PATIENTS ON TUMOUR NECROSIS FACTOR INHIBITORS TREATMENT

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Background: Tumour necrosis factor (TNF) plays a major role in defense against leishmaniasis. Despite wide use of TNF α inhibitor (anti-TNF) for several diseases, leishmaniasis has been a rare infectious complication so far in these patients. Recently, an increased incidence has been noted.

Objectives: To describe a recent multicenter case series of leishmaniasis in patients with chronic inflammatory diseases treated with anti-TNF.

Methods: We reviewed the clinical history of a multicentric series of patients with chronic inflammatory diseases treated with anti-TNF, who were diagnosed with leishmaniasis between January 2013 and December 2017. Patients came from Rheumatology, Digestive and Dermatology departments of several hospitals in Valencia² and Cataluña¹ region. Demographic (age, sex) and clinical (inflammatory disease, comorbidities, current treatment, year of infection and leishmaniasis form) variables were collected. Anti-TNF withdrawal, subsequent reintroduction and recurrence rate were recorded in two hospitals. Biologic drug dispensation trends from 2013 to 2016 and epidemiological data published by the Regional Ministry of Health of Valencia for the area where cases were most incident were analysed.

Results: 25 cases of leishmaniasis in patients treated with immunomodulators were identified: 7 on DMARD, 1 on tocilizumab and 17 on anti-TNF (7 infliximab, 4 adalimumab, 3 golimumab, 2 certolizumab, 1 etanercept). Regarding patients on anti-TNF, 2 cases were collected in 2014, 4 in 2015, 4 in 2016 and 7 in 2017. Three patients developed the visceral form, 13 the cutaneous form and 1 presented visceral and cutaneous involvement. Seven patients were males and 10 females, with an average age of 50 (SD14) years. One patient presented rheumatoid arthritis, 4 psoriatic arthritis, 1 undifferentiated spondyloarthritis, 2 ankylosing spondylitis, 1 uveitis, 6 Crohn's disease and 2 ulcerative colitis. Six patients presented other chronic disease (1 latent tuberculosis, 1 pyoderma gangrenosum, 1 psoriasis and 3 diabetes mellitus). In two hospitals (15 patients), anti-TNF treatment was withdrawn in 10 cases, and it was reintroduced after treating the infection in 5 cases. No infection recurrences have been identified. Focusing on the area with the highest incidence of cases, despite the increase in anti-TNF use over the last years, its consumption was not parallel to the rise of leishmaniasis cases reported.

Conclusions: the disproportionate increase of leishmaniasis cases in patients with anti-TNF suggests the necessity to investigate and control other possible factors involved.

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SAT0403 BLOOD B CELL SUBSET PROFILE DISTURBANCE IN WHIPPLE'S DISEASE

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Background: Technological advances have improved phenotypical characterisation of blood cells, and flow cytometry is currently used in haematology, infectious disease, systemic auto-immune diseases. Abnormalities of blood B cell subset profile might provide a useful diagnostic tool in systemic auto-immune diseases, especially for primary Sjögren's Syndrome¹ in which the activated B cells to memory B cells ratio is increased. Nevertheless, we observed that some patients suffering from chronic infection had lymphocytes disturbances similar to those observed in primary Sjögren's Syndrome.

Objectives: Whipple's disease (WD) is a rare, systemic, disease caused by intracellular gram positive bacterium, *Tropheryma Whipplei* (TW). No previous study evaluated the role of B cells in WD. The aim of this study was to analyse whether the circulating blood B cell subset disturbances is characteristic of WD.

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.

REFERENCE:

- [1] Binard A, Le Pottier L, Devauchelle-Pensec V, Saraux A, Youinou P, Pers J-O. Is the blood B-cell subset profile diagnostic for Sjogren syndrome? *Ann Rheum Dis* 2009;68(9):1447–52.

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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 whom 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.

Acknowledgements: All clinicians participating the study.

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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.

REFERENCES:

- [1] Rodríguez- Morales A, et al. Prevalence of post-Chikungunya Chronic Inflammatory Rheumatism: A Systematic Review and Meta-Analysis 2016.
- [2] Campion E. Chikungunya Virus and the Global Spread of a Mosquito-Borne Disease. *NEJM* 2015.
- [3] CDC. Chikungunya in Italy 2017.

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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.