patients with chronic joint symptoms in the Atlántico Department of Colombia.

Methods: Sixty-seven patients with chronic arthralgia and 15 patients without arthralgia were followed up a mean of 40 months after chikungunya infection. The patients came from a larger cohort of 500 patients previously followed up 20 months after infection. Those consenting to a 40-month in-person follow-up were included here. Tender joint counts, a pain intensity visual analogue scale (VAS), Health Assessment Questionnaire-Disability Index (HAQ-DI) and the EuroQol overall health VAS (EQ-VAS) were completed. A 21-item musculoskeletal stiffness questionnaire (MSQ) was completed and summarized as percentage scores for overall stiffness and its components: stiffness severity, physical impact and psychosocial impact.

Results: The 82 patients (12 male and 70 female) had a mean age 51 $\pm$ 14 years. Forty-two out of sixty-seven patients with arthralgia and 3/15 patients without arthralgia reported musculoskeletal stiffness. Stiffness in those patients had a median severity of 28% (IQR 0-42). An impact of their stiffness on physical activities was reported by 39/45 patients (87%) and psychosocial impact by 32/45 patients (71%). Overall MSQ score was a median of 16% (IQR 0-34). Mean tender joint count in patients reporting arthralgia was 6.2 $\pm$ 7.1, mean pain intensity 65 $\pm$ 20 out of 100, mean HAQ-DI = 0.54 $\pm$ 0.52, and a mean EQ-VAS = 68 $\pm$ 62 out of 100. Overall stiffness scores were poorly correlated with tender joint counts ($r^2=0.17$) and pain intensity ($r^2=0.22$). Stiffness scores were more strongly associated with the HAQ-DI ($r^2=0.52$) and EQ-VAS overall health VAS scores ($r^2=0.46$), whereas tender joint counts were not: $r^2=0.22$ for HAQ-DI and $r^2=0.21$ for EQ-VAS.

Conclusion: Musculoskeletal stiffness following chikungunya infection is distinct from the persistent arthralgia usually reported. It does not necessarily occur in the same patients and is poorly correlated with joint pain severity. Stiffness, as measured by this questionnaire, may be more strongly associated than arthralgia with overall health and disability indices in patients with chikungunya disease. The MSQ is a potentially useful instrument for assessing symptoms in chronic chikungunya disease.

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SAT0474 AUTOIMMUNE MANIFESTATIONS OF VISCERAL LEISHMANIASIS IN CHINESE PATIENTS

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Background: Visceral leishmaniasis (VL), caused by the protozoan *Leishmania* species, is the most severe form of leishmaniasis. The parasite migrates to the internal organs such as the liver, spleen, and bone marrow, and if left untreated, will almost always cause the host to die [1]. Due to polyclonal B cells activation, VL may present signs and symptoms resembling those of rheumatic diseases, especially systemic lupus erythematosus (SLE) [2-4]. This can sometimes lead to mis-diagnosis and treatment of corticosteroids.

Objectives: To analyze 27 Chinese VL patients retrospectively and focused on their autoimmune findings that could help clinicians to differentiate VL from SLE.

Methods: 27 in-hospitalized VL patients in our hospital from 2006 to 2015 were analyzed. VL was diagnosed by the presence of high titers of anti-leishmania antibodies in the blood or by demonstration of intracellular parasites on bone marrow aspiration. All patients were negative for hepatitis B, hepatitis C and human immunodeficiency viruses. Autoimmune antibodies were detected. Levels of serum globulins, complement C3, C4 and RF were evaluated. Coagulation parameters, including prothrombin time (PT) and activated partial thromboplastin time (APTT) were also tested.

Results: The basic characteristics and laboratory findings of the 27 patients were summarized in Table 1. All patients had hepatosplenomegaly. 38.9% had positive ANA, but the titer was no more than 1:320. None of the patients had positive anti-Sm antibody and only 1 had anti-dsDNA antibody. 89.5% had increased IgG level and none had decreased C3 or C4.

All patients were cured with sodium stibogluconate, and ANA titers decreased after treatment.

Conclusion: VL may mimic symptoms of SLE due to polyclonal activation of B cells. However, hepatosplenomegaly is a common symptom seen in

VL but not so common in SLE. Furthermore, VL patients don't have typical autoantibodies of SLE, their ANA titer are normal to low and they tend to have normal complements, which could help clinicians to differentiate these two diseases.

Table 1. Basic characteristics and clinical manifestations of VL patients

Sex (Female/Male)	4/23
Age (median, range)	37 (9-59)
Disease duration (months) (median, range)	1 (0.17-24)
Anti-leishmania antibodies positive	27
Parasites positive in bone marrow	24
Fever	25
Hepatosplenomegaly	27
Weight loss	14
Anemia	26
Leucocytopenia	23
Thrombocytopenia	20
Prolonged APTT	12/21
Prolonged PT	12/21
Positive ANA	7/18

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SAT0475 ECHINOCOCCOSIS AND AUTO-IMMUNE INFLAMMATORY ARTHRITIS; REPORT OF 8 CASES AND REVIEW OF THE LITERATURE

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Background: The prevalence of Echinococcosis in Western Europe and Switzerland has been rising in the past 20 years: >30 cases per year have been reported since 2005 (1). A few case reports (2) and some experimental animal studies (3) have suggested that the immunosuppression linked to inflammatory arthritis and their treatments could favor the development and the growth of parasitic lesions. On the other hand, a recent French study (4) has shown that the prevalence of Echinococcosis in arthritis patients was close to the normal population. The characteristics of the parasitic disease were quite similar whether inflammatory arthritis was present or not.

Objectives: To evaluate the yearly recent incidence of this disease among patients with inflammatory arthritis in Switzerland and to search

for any interaction between arthritis, the treatment of arthritis and development and evolution of the echinococcosis.

Methods: We collected all the cases with the diagnosis of echinococcosis among the patients regularly followed and treated for inflammatory arthritis in three different tertiary rheumatology centers of Western Switzerland (1.7 million inhabitants, 5000 arthritis pts).

Results: Between 2012 and 2018, 8 cases of echinococcosis (1.3 case/year/5000pts) could be found. The estimated yearly incidence among this arthritis population appears therefore to be significantly higher ($p<0.0001$) than the one reported in the general population in Switzerland (30/8000000 inhabitants). Figure summarized the relation between the parasitic and the inflammatory disease. Different types of inflammatory arthritis were implicated. Previous and ongoing arthritis treatments comprised also different types of biologics. In 6/8 cases, the parasitic disease was asymptomatic and limited to a single organ, a proportion much higher than what is usually found in the general population. In 2 of them, the discovery was very close in time to the diagnosis of arthritis and treatment initiation (<6 months). 4 pts could be treated by surgery alone. 6 continued their treatments for arthritis. No evidence of relapses after surgery (4 pts) or progression under albendazole (4 pts, median follow-up: 44 months) was found.

Conclusion: The incidence of echinococcosis in autoimmune arthritis appears to be higher than in general population but remains very low. Outcome seems not to be affected by inflammatory arthritis and their treatments but the long-time effects of the combination between arthritis treatments and albendazole need to be further evaluated.

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Paediatric rheumatology

SAT0476 JUVENILE IDIOPATHIC ARTHRITIS IN SINGAPORE: A 10-YEAR CLINICAL EXPERIENCE

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Background: Juvenile Idiopathic Arthritis (JIA) is the commonest inflammatory arthritis of childhood worldwide.

Objectives: To describe the incidence, clinical characteristics and experience with JIA in Singapore over a 10-year period.

Methods: A prospective study was conducted in KK Women's & Children's Hospital and National University Hospital, Singapore from Jan 2009-Dec 2018. JIA was defined and classified according to ILAR criteria¹. Demographics and clinical information were collected for every patient diagnosed with JIA.

Results: 379 children were diagnosed with JIA (60.2% male, 71.2% Chinese). Average estimated incidence was 5.8 per 100000/yr. Clinical characteristics and treatment used are summarized in Table 1.

Table 1. *Median (IQR). Rest expressed in n (%). Disease modifying anti-rheumatic drugs (DMARD) were used in 67.8%, and younger age of diagnosis ($p=0.002$), longer lag time ($p=0.004$), males ($p=0.018$) and ERA ($p=0.043$) predicted their use. 38.3% required biologics, and males ($p=0.047$), longer lag time ($p=0.037$) and HLA-B27 positivity ($p=0.030$) were associated with their use. Uveitis incidence was 2.9%; 54.5% had oligoarthritis, 36.4% ERA, 9.1% polyarthritis (RF-). Younger age at JIA diagnosis was associated with uveitis ($p=0.030$).

Conclusion: ERA is the commonest subtype of JIA in our cohort, explaining the male predominance and higher HLA-B27 positivity as compared to the West². Longer lag time was associated with DMARD and biologic use, likely due to more severe disease at presentation. HLA-B27 association with biologic use may predict ineffectiveness of DMARD. Uveitis incidence was low as compared to Western literature that cites a prevalence of 11-30%^{3,4}. Young age at diagnosis is a risk factor for uveitis. Interestingly, ANA-positivity and female gender were not associated with uveitis cases.

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SAT0477 QUALITY OF LIFE IN SUBJECTS WITH PRE-PUBERTAL ONSET SYSTEMIC LUPUS ERYTHEMATOSUS

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Background: Systemic Lupus Erythematosus (SLE) can be a severe disease, especially when diagnosed in childhood. Onset prior to puberty (Tanner stage II) is rare, and less is known about the impact SLE has on this pediatric subpopulation. We assessed clinical and quality of life (QOL) measures in a prepubertal SLE onset cohort to better globally understand the burden of this disease in this group.

	Overall	Systemic	Oligo-articular	Polyarticular (RF -)	Polyarticular (RF +)	Psoriatic	ERA	Undifferentiated
N (%)	379 (100)	32 (8.4)	133 (35.1)	47 (12.4)	13 (3.4)	10 (2.6)	137 (36.1)	7 (1.8)
Onset age, yr*	10.4 (6.6-13.3)	6.6 (4.5-10.1)	8.5 (5.1-12.1)	7.9 (3.5-12.8)	9.9 (7.1-13.5)	13.3 (6.2-14.3)	12.2 (10.0-14.3)	9.7 (6.2-13.5)
Diagnosis age, yr*	10.9 (7.1-14.0)	6.4 (4.1-10.2)	9.0 (6.0-13.4)	8.6 (3.7-13.3)	10.2 (7.4-13.7)	13.8 (10.7-15.3)	12.6 (10.7-14.7)	11.2 (9.2-15.1)
Lag time, mth*	2.9 (1.0 - 7.4)	0.7 (0.3-1.2)	3.1 (1.1-7.6)	3.0 (1.6-9.8)	2.6 (2.1-4.6)	5.0 (1.2-12.4)	3.6 (1.2-8.1)	8.3 (1.6-36.5)
ANA (n = 253)	124 (32.9)	11 (34.4)	50 (40.3)	23 (48.9)	5 (38.5)	8 (80.0)	27 (20.0)	0 (0.0)
Positive RF (n = 374)	23 (6.1)	5 (17.2)	2 (1.5)	0 (0.0)	13 (100.0)	0 (0.0)	2 (1.5)	1 (14.3)
Positive HLA-B27 (n = 368)	112 (30.4)	0 (0.0)	4 (3.1)	2 (4.3)	0 (0.0)	0 (0.0)	104 (75.9)	2 (28.6)
Positive Uveitis diagnosed	11 (2.9)	0 (0.0)	6 (4.5)	1 (2.1)	0 (0.0)	0 (0.0)	4 (2.9)	0 (0.0)
DMARD use	257 (67.8)	21 (65.6)	47 (35.3)	40 (85.1)	13 (100.0)	10 (100.0)	121 (88.3)	5 (71.4)
Biologic use	145 (38.3)	17 (53.1)	17 (12.8)	17 (36.2)	9 (69.2)	3 (30.0)	79 (57.7)	3 (42.9)