In areas where Lone Star ticks are present, and in patients with risk factors for tick exposure, alpha gal IgE reactivity should be considered and tested for as part of a "tick panel" in patients who present with symptoms of potential rheumatologic diseases.

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SAT0457

PATTERNS AND CONSEQUENCES OF POST-CHIKUNGUNYA ARTHRITIS – A LONGITUDINAL STUDY IN A TERTIARY CARE HOSPITAL IN BANGLADESH

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Background: Chikungunya fever (CF), is a viral illness, characterized by 3–7 days of high fever, headache, rash, myalgia, and severe arthralgias/arthritis, the hallmark of the disease.¹ There is evidence that links Chikungunya infection (CHIKV) with development of unspecific Post-Viral Arthritis, Rheumatoid Arthritis, Seronegative Spondylitis and other non-inflammatory musculoskeletal complaints like persistent arthralgia.²

Objectives: To identify the clinical patterns and consequences of Post-Chikungunya arthritis.

Methods: This longitudinal study was carried out during a major out-break of CHIKV infection in Dhaka, Bangladesh, among 142 patients (CHIKV IgM and/or IgG positive) who were followed-up for the next one year. Their clinical, laboratory, radiographic and ultrasonographic features were evaluated. Functional status was assessed by validated Bengali version of Health Assessment Questionnaire (HAQ).

Results: The mean age of the patient's was 43.12 ± 10.94 where 50.7% were male and 81.7% were urban resident. At presentation (D1), 95.1% patients were Chikungunya IgM positive where as 20.4% were IgG positive. Polyarthritides was noted among 69.7% patients. Symmetrical joint involvement and joint swelling were present in 84.5% in 47.2% patients respectively. The mean HAQ score was 1.34 ± 0.72 . After 3 months (D90) follow up, 40.8% patients reported Chronic Chikungunya arthritis where 6.9% had Rheumatoid Arthritis, 3.4% had Spondyloarthropathy and 89.6% were Undifferentiated arthritis. Among the Chronic Chikungunya arthritis patients, 5.2% were Anti-CCP positive, 1.7% were Rheumatoid factor positive, 3.4% were HLA-B27 positive and 3.4% had X-Ray findings of bilateral Sacroiliitis. Patients were treated with NSAID (100.0%) and steroid (10.0%) initially. Chronic arthritis was treated with Sulfasalazine (12.0%), Methotrexate (7.0%) and Tofacitinib (3.4%).

Conclusion: This study demonstrated that chronic arthritis was a frequent complication of acute Chikungunya infection where majority had undifferentiated arthritis.

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Table 1. Clinical presentation of the patients at onset (n=142)

Characteristics of joint involvement at onset	n (%)
Monoarthritis	7(4.9)
Oligoarthritis	36(25.4)
Polyarthritides 99(69.7)	
Symmetrical joint involvement	120(84.5)
Joint swelling	67(47.2)
Morning stiffness	116(81.7)
Skin involvement	90(63.4)
Erythematous rash 24(16.9)	
Erythematous rash and itching	66(46.5)
Myalgia 46(32.4)	
Ultra-sonographic findings	(n=32)
Tenosynovitis	22(68.8)
Synovial hypertrophy	11(34.4)
Tendinitis	8(25.0)
Median nerve involvement (CTS)	4(12.5)
Joint effusion	3(9.4)

Figure 1: Distribution of patients by functional disability using HAQ

Figure 2: Type of Chikungunya arthritis

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SAT0458

EVALUATION OF DISABILITY IN THE COLOMBIA CHIKUNGUNYA EPIDEMIC WITHIN A COLOMBIAN COPCORD STUDY

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Background: During the 2014-2015 a Chikungunya virus (CHIKV) epidemic reached Colombia. Concurrently, the Community Oriented Program for the Control of Rheumatic Diseases (COPCORD) was being developed in Colombia to establish rheumatic diseases prevalence. Since CHIKV generates rheumatic manifestations, the presence of CHIKV infection was included.

Objectives: Based on the population entered in this program this study was developed with the aim to describe the disability of CHIKV infection through four questionnaires (HAQ-DI, EQ-5D, EQ-5D VAS and VAS for pain).

Methods: World Health Organization (WHO) criteria for CHIKV diagnosis and ELISA IgG and IgM serology were performed to identify CHIKV infection. Four groups of patients were defined: true positives (WHO + and + serology), true negatives (WHO - and - serology), false positives (WHO + and - serology), false negatives (WHO - and + serology). Three scores of disability and one of pain were applied to evaluate disability. A descriptive analysis was made using the media and standard deviation for continuous variables and percentage for the categorical variables, the Odds ratio was calculated with a confidence interval of 95% and a p<0.05% for statistical significance

Results: From 548 patients with clinical suspicion of CHIKV infection, 295 were positive for CHIKV IgG and/or CHIKV IgM. Functionality evaluated by HAQ-DI showed a media of 0.17 (SD±0.45), with highest score after 7 weeks since the beginning of symptoms and the lowest in patients

with CHIKV IgM positive. In the EQ-5D (Figure 1), between 72% and 92% of patients didn't report problems on the mobility, self-care, usual activities, anxiety and depression dimensions. In contrast pain and discomfort dimensions were affected from moderate to extreme (44.7% and 8.6%). There weren't significant differences between true positives, true false, false negative within all the variables, except on the anxiety and depression dimensions where the false positives had a higher significant score in comparison to the other groups (n: 10, 38.5%; p=0.00; OR:4.17, IC:1.8-9.57). In the EQ-5D-VAS, media for VAS was 75.56 (SD±21.18) where the highest scores of VAS were found on the false negatives. In pain VAS, false positives as well as the duration greater than 7 weeks where associated with several pain (n: 10, 2.9%; OR: 0.2; IC 1.25–6.33 y n: 27, 21.3%; p=0.018; OR 2.02, IC: 1.12–3.66 respectively).

Conclusion: In general, the disability of CHIKV infected patients was mild to moderate, finding the most affected dimensions to be pain, discomfort, anxiety and depression. The false positives and the population with anxiety and depression are related with higher score of disability.

Figure 1. EuroQol-5D in patients with CHIKV infection from the Colombian COPCORD cohort.

Disclosure of Interests: None declared

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SAT0459

DIAGNOSIS AND MANAGEMENT OF ACUTE HOT JOINTS AT A TERTIARY RHEUMATOLOGY CENTRE OVER A 7-MONTH PERIOD

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Background: The acute hot joint presentation is common in clinical practice, often due to crystal arthritis or non-inflammatory conditions. The most serious diagnosis is septic arthritis (SA), which can destroy cartilage within days, and therefore must be promptly diagnosed or excluded. The mortality rate for SA is 7-15%, despite antibiotic use [1]. Crystal arthropathies and SA are difficult to distinguish clinically, requiring arthrocentesis and synovial fluid (SF) analysis, in keeping with national guidelines.

Objectives: 1. Quantify number of acute hot joint presentations to our hospital over 7 months, including incidence of SA and crystal arthropathy. 2. Determine clinical features and outcomes (including morbidity/mortality) in SA.

3. Compare clinician diagnosis with laboratory diagnosis (gold-standard diagnostic test; crystal microscopy and culture).

4. Determine the correlation between WCC and crystal arthropathy or SA. **Methods:** We retrospectively analysed laboratory diagnostic data and electronic clinical records, for patients presenting to a tertiary rheumatology centre in Northwest England with an acute hot joint, February-August 2018. For crystal arthropathy and SA, sensitivity, specificity, likelihood ratios, and accuracy of diagnosis were calculated for clinician diagnosis when compared to laboratory diagnosis, using the statistical software 'R'. WCCs were used to create receiver operating curves (ROCs), with area under the curve and predicted diagnostic threshold for SA and crystal arthropathy. In cases of SA, organism, serum inflammatory markers, and outcomes were recorded.

Results: 137 patients were included. The most common site of arthrocentesis was the knee (n=108). There were 53 clinician-confirmed cases of crystal arthropathy. Compared to laboratory crystal microscopy, this yielded a sensitivity of 91.7%, specificity 80.2%, diagnostic accuracy 83.2%. There were 10 cases of native joint SA (plus 2 prosthetic and 1

case of osteomyelitis). SF cultures were positive in 80% of cases, all of which grew *Staphylococcus aureus*. 50% had commenced antimicrobials prior to arthrocentesis. 8 cases were treated successfully (5 prolonged admission due to underlying rheumatological disease); the 2 culture-negative cases had significant morbidity, with persistent symptoms. For SA, mean serum C-reactive protein at presentation was 152; serum WCC was 12. Clinician diagnosis, compared to culture results, yielded a sensitivity of 100%, specificity 98.4%, diagnostic accuracy 98.5%. Figure 1 shows mean SF WCC by diagnosis; highest value was SA (WCC=136293). ROC analysis of WCC yielded potential diagnostic threshold of 36450 for SA (AUC=0.7) and 10000 for crystal arthropathy (AUC=0.7) in our cohort.

Conclusion: The acute hot joint continues to be a common presentation in the acute medical setting. SA has considerable morbidity associated with it, especially in the presence of co-existing rheumatological disease. Our results confirm the importance of prompt arthrocentesis, prior to commencement of antimicrobials. SF WCC may also be utilised as a rapid diagnostic marker, especially differentiating between inflammatory and non-inflammatory causes of a hot joint, when taken with clinical assessment.

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Figure 1

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SAT0460

HCV-RELATED MIXED CRYOGLOBULINAEMIA IN THE DIRECT-ANTIVIRAL AGENTS ERA: IS THERE ADVANTAGE IN SEQUENTIAL THERAPY WITH RITUXIMAB?

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Background: Mixed Cryoglobulinaemia(MC) is a small vessel vasculitis characterized by the presence of a monoclonal rheumatoid factor(RF) and polyclonal immunoglobulins that precipitate at cold temperature, with a large spectrum of clinical manifestations. MC is strongly associated with hepatitis C(HCV) infection>90%. The new direct-acting antivirals(DAA) against HCV, which can eradicate the virus in >95% of patients, are supposed to have benefits on clinical manifestations of MC, nonetheless the amount of data is still limited. Patients with severe vasculitis may require anti-CD20 agent Rituximab(RTX) over DAA. However, despite the strong rationale, the advantage of dual therapy is still debated and the optimal therapeutic schedule unknown.

Objectives: To investigate the impact of DAA treatment on clinical manifestations and biochemical parameters of disease activity in HCV-related MC patients who reached complete viral eradication, and if pre-treatment with RTX was able to define a subset of patients with a different outcome.

Methods: Data was collected from 31 patients with MC, mean age 68 yrs, female 80%, mean disease duration 10 yrs who were treated with