during the 12 months follow-up. 38 patients (66.67%) were receiving ETN and 19 (33.3%) ADA, of which 11 patients (28.95%) had a flare with ETN and 8 patients (42.11%) with ADA. Table 1 shows demographics. Median time to flare was 5.73 months (IR 2–93–8.9). Concomitant methotrexate was lower in patients with flare (26.32% vs 71.05%). In 18 patients (31.58%), a previous tapering was done and median time of remission before being included was 22 months (IR 15.5–28.5). US does not predict flare in our cohort. Global synovitis score at baseline was 4 (IQR 1.3–10.8) and 0 in BM and PD respectively, and tenosynovitis was 0 both BM and PD

| | All patients (n: 57) | Patients with flare (n: 19) |
|---|---|---|
| Gender; women (%) | 39 (68.42) | 10 (52.63) |
| Time of remission previous to tapering median months (IR) | 22 (15.5–28.5) | 35 (35) |
| Biologic therapy (ETN/ADA) | 38/19 | 11/8 |
| Concomitant DMARD, n (%) | 32 (56.14) | 5 (26.32) |
| Previous tapering, n (%) | 18 (31.58) | 5 (26.32) |
| JIA subcategories: n (%) | | |
| Persistent oligoarticular JIA | 15 (26.32) | 5 (33.33) |
| Extended oligoarticular JIA | 14 (24.56) | 4 (28.57) |
| RF– polyarticular JIA | 15 (26.32) | 5 (33.33) |
| RF+ polyarticular JIA | 2 (3.51) | 1 (50) |
| Enthesitis related JIA | 3 (5.26) | 2 (66.6) |
| Psoriatic JIA | 8 (14.04) | 2 (25) |

**Conclusions:** Anti-TNF tapering was safe in our JIA patients in more than half of patients after 1 year follow-up. US did not predict flares in our patients. Concomitant treatment with methotrexate was more frequent in patients who remained on remission

**References:**

[1] Cai Y. Rheumatol Int.2013.
[2] Magni-Manzoni S.Ann Rheum Dis.2013.

**Disclosure of Interest:** None declared

**DOI:** 10.1136/annrheumdis-2017-eular.3561

## THU0515 DISABILITY AND LOWER QUALITY OF LIFE IS ASSOCIATED WITH SOCIOECONOMIC PASSIVITY IN YOUNG ADULTS WITH JUVENILE IDIOPATHIC ARTHRITIS

K. Rebane[1], L. Ristolainen[2], H. Relas[3], T. Orenius[2], H. Kautiainen[4], R. Luosujärvi[5], K. Aalto[6], H. Säilä[2]. *[1]Children's Hospital, University of Helsinki and Helsinki University Central Hospital; [2]ORTON Research Institute, ORTON Foundation; [3]Unit of Primary Health Care and Department of General Practice, Helsinki University Hospital Helsinki; [4]Helsinki University Central Hospital; [5]Unit of Primary Health Care and Department of General Practice, Helsinki University Central Hospital; [6]Children's Hospital, University of Helsinki and Helsinki University Central Hospital, Helsinki, Finland*

**Background:** Health related quality of life of adult patients with juvenile idiopathic arthritis (JIA) is shown to be significantly lower compared to the general population.[1,2]

**Objectives:** We aimed to recognize young adults with JIA who are socioeconomically passivated and to assess which areas of self-rated health are associated with the emergence of passivity symptoms.

**Methods:** We studied 195 young adults with JIA using questionnaires addressing demographics, health behavior, and physical activity. The HAQ questionnaire was used to assess functional ability, quality of life was assessed with RAND-36, depressive symptoms were assessed with BDI-II, and self-esteem was evaluated by using the Rosenberg scale. Patients were classified as active if they were engaged in studying, working, maternal leave or military service; and as passive, if they were unemployed or on disability pension.

**Results:** 80% of the patients were female, mean age was 23 years, and disease duration was approximately 15 years. Patients in the passive group participated less in leisure time non-physical activities ($p$ =0.033), they felt more disturbed during their leisure time ($p$ =0.010). Leisure time physical activity did not reveal statistically significant differences between the groups. The majority of the patients in the passive group (58%) had only basic education ($p$<0.001), they visited their doctor more frequently ($p$=0.019) and they used oral prednisolone more often ($p$<0.018). Approximately 70% of the patients received disease modifying antirheumatic drugs, and nearly half of the patients were treated with biologicals in both of the groups. Mean disability scores on HAQ were higher in the passive group ($p$=0.012). Depressive symptoms did not differ between the groups. Self-esteem was lower in the passive group ($p$=0.002). Results in health related quality of life revealed statistically significant differences between the groups: physical functioning ($p$=0.049), social functioning ($p$ =0.020), and emotional well-being ($p$=0.047) were significantly lower in the passive group.

**Conclusions:** Patients being socioeconomically more passive showed higher degrees of disability, reporting lower physical functioning, self-esteem, emotional well-being, and social functioning. Those patients should be recognized earlier and activating interventions should be provided.

**References:**

[1] Foster HE, Marshall N, Myers A, Dunkley P, Griffiths ID. Outcome in adults with juvenile idiopathic arthritis: A quality of life study. Arthritis Rheum. 2003;48(3):767–75.
[2] Barth S, Haas JP, Schlichtiger J, Molz J, Bisdorff B, Michels H, et al. Long-Term Health-Related Quality of Life in German Patients with Juvenile Idiopathic Arthritis in Comparison to German General Population. PLoS One. 2016;11(4): e0153267.

**Disclosure of Interest:** None declared

**DOI:** 10.1136/annrheumdis-2017-eular.5730

## THU0516 LONGER TERM OUTCOMES OF CRMO IN A TERTIARY ADOLESCENT AND YOUNG ADULT RHEUMATOLOGY CENTRE IN THE UK

K.E.N. Clark, F. Josephs, N. Daly, Y. Ioannou, C.L. Murphy, D. Sen.
*Rheumatology, University College London Hospitals, London, United Kingdom*

**Background:** Chronic relapsing multifocal osteomyelitis (CRMO) is a rare autoinflammatory bone condition presenting primarily in children and adolescents. It characteristically affects the epiphysis and metaphysis of long bones, and presents with bony pain, local swelling and warmth.

**Objectives:** The aim of this study was to collate our tertiary adolescent rheumatology centre's experience of managing patients with CRMO, and establish their longer term outcomes, possible by the fact we have a cohort of patients with CRMO under long-term follow-up.

**Methods:** We carried out a retrospective case note review of all patients who are known to our service with a diagnosis of CRMO, presenting between age 13–20.

**Results:** In total 17 patients were identified as having CRMO, presenting between 1999 and 2015. 10 patients were female, and 7 patients male. The median age of initial symptoms, and age of presentation was 12 years (range1–16 years).

Median duration of follow up is 4.75 years (range 1–16.5 years). Since initial diagnosis, 3 patients evolved into a SAPHO (synovitis, acne, pustolosis, hyperostosis, osteitis) phenotype, 3 an ERA (enthesitis related arthritis) phenotype and 2 patients developed oligoarticular juvenile idiopathic arthritis (JIA).

35% of patients have a purely unifocal disease, and 65% have multifocal disease as confirmed by whole body MRI. 70.5% patients had recurrent episodes of inflammation, while 29.5% of patients had only one flare and then reached remission (either clinical or confirmed with MRI). 15 patients had their diagnosis confirmed with biopsy, while 2 did not due to site of disease. Their diagnosis is assumed based on clinic impression, and typical radiographic findings.

Sites of disease confirmed in our patients include lower limbs (70% patients), upper limbs (35% patients), clavicle (29.4%), mandible (17.6%) and spine/pelvis (23.5%).

All patients were treated with NSAIDs. In terms of treatments used since diagnosis, 76% patients have been on methotrexate (MTX), 47% had one infusion of pamidronate, and 23% required more than one infusion of pamidronate. Other medications include sulfasalazine (SSZ), azathioprine, risedronate and anti-TNFs (adalimumab, etanercept and infliximab).

On last clinic review, with or without imaging, 35% of patients continue to have active disease. Currently 29% patients are on MTX alone, 23% patients are on adalimumab and MTX, and 35% are only maintained on NSAIDS. Of those without active disease 5 patients (45%) are not on any DMARD or biologic therapy.

**Conclusions:** We present here our experience of managing adolescent patients with CRMO.

The perceived wisdom is that CRMO is a self-limiting disease which eventually goes into remission. However our centre's experience is that nearly 50% of our patients have a disease which evolves into another systemic autoimmune disease, mainly SAPHO, polyarticlar or enthesitis related JIA. Previous case series have suggested only 0–30% of patients' disease evolves. This may be a reflection of our older cohort of patients, who are only referred to our service with ongoing disease.

The majority of patients have a recurrent and multifocal course of disease. The most common site of disease was in the lower limbs. All patients were treated with NSAIDS, and a combination of DMARDS, bisphosphonates and biologic agents have been used, which has resulted in remission of disease in the majority of patients.

**Disclosure of Interest:** None declared

**DOI:** 10.1136/annrheumdis-2017-eular.5188

## THU0517 LARGE VESSEL VASCULITIS IN INFANTS - A CASE SERIES

L. Das[1], J.H.T. Tan[1], X.C. Gao[1], S.F. Hoh[1], T. Arkachaisri[1,2]. *[1]Rheumatology and Immunology Services, Department of Paediatric Subspecialties, KK Women's and Children's Hospital; [2]Duke-NUS Medical School, Singapore, Singapore*

**Background:** Large vessel involvement following recrudescent or recalcitrant Kawasaki Disease or other vasculitidies in young children have been limited to few case reports and outcomes are still unclear.

**Objectives:** To describe and compare the characteristics and outcomes of 6 patients with large vessel vasculitis diagnosed between 2013 to 2015 in KK Hospital, Singapore

**Methods:**

Demographic and disease characteristic information were collected and median, interquartile range (IQR) & percentiles were used to describe the data.

**Results:** 6 patients were included in the analysis. Median age was 3.75 months

(IQR 3.75, 4). Other than 1 Filipino 2 year old girl (patient C), all other infants were of Chinese Singaporean origin and were less than age 1 year at onset; 4 male and 1 female. All patients were found to have multiple areas of irregular, thickened vessel walls with enhancement, involving the aorta and additional medium sized arteries on Magnetic Resonance Angiography (MRA).
Only patients C and F presented with prolonged fever and or less than 1 clinical feature of KD. C developed a unilateral enlarged lymph node on recrudescence of fever 1 month after the initial event. She was then found to have dilated CA (dCA) and consequently abnormal MRA. Other patients had significant KD Index scores and complete KD presentations.
Of the 4 patients who received only 1 dose of IVIG; C and F had diagnosis change from atypical KD to Takayasu Arteritis and G developed rhinovirus and then rotavirus as reason for prolonged fever. Patient A received IV steroids and then Infliximab. All patients received steroids. Patients A and B both developed a psoriasiform rash post-Infliximab which resolved on follow up.
Patient F and Patient B died 3 months and 17 months after diagnosis. Patient F, presented with fever, fussiness and enteritis aged 4 months. Her symptoms recurred 2 weeks after onset. Due to differential hypertension, she received an echocardiogram and subsequently MRA and cardiac catherization. Cause of death at age 7 months was small bowel perforation with arteritis and consequent intra-abdominal sepsis.
Patient B, presented with complete features of KD at age 2 months. His course was noted for recrudescence 2 weeks and 4 weeks after initial IVIG. He developed giant coronary aneurysms with abnormal MRA findings; developed myocardial infarction at age 8 months and proceeded to require a Left Ventricular Assist Device but died age 13 months from multi-organ failure.
3/6 (50%) developed aneurysms, D and F were giant. 4 surviving patients, had improvement in all vessels but continued activity in the aorta on follow up MRA, they remain on Methotrexate with no active clinical findings.

Table 1: Patient characteristics

| ID | Hg# (g/DL) | WBC count ($10^9$/L) | Platelet count ($10^9$/L) | CRP (mg/L) | Time to initial MRA (weeks) | Follow up MRA (months) | Immunosuppression |
|---|---|---|---|---|---|---|---|
| A | 10.8 | 11.3 | 357 | 130 | 2 | 20 | ifx |
| B | 8.9 | 24.76 | 595 | 178.4 | 4 | 8 | ifx |
| C | 9.9 | 15.34 | 532 | 64.4 | 4 | 8 | mtx |
| D | 9.6 | 26.23 | 270 | 108.3 | 2 | died | n |
| E | 8.6 | 19.99 | 750 | 175.2 | 1 | died | ctx |
| F | 11.7 | 18.54 | 497 | 142 | 4 | 6 | ifx, mtx |

#Hg Hemoglobin, IFX infliximab , MTX methotrexate, CTX cyclophosphamide

**Conclusions:** Extensive involvement of the systemic arteries and aorta in all patient were noted on initial MRA. Follow up imaging, showed improvement in all vessels. After 1 year of follow up, complete resolution occurred only in medium vessels.
Mortality in this patient cohort was 2/7 (28.6%).
This is an observational case series and our findings will need to be reproduced in larger groups of patients.
**References:**
[1] Newburger JW, Takahashi M, Gerber MA, et al. Diagnosis, treatment, and long term management of Kawasaki disease. Circulation 2004;110:2747–71.
[2] McCulloch M, Andronikou S, Goddard E, et al. Angiographic features of 26 children with Takayasu's arteritis. Pediatr Radiol (2003) 33: 230–235.
**Disclosure of Interest:** None declared
**DOI:** 10.1136/annrheumdis-2017-eular.5812

## THU0518 BIOLOGICAL THERAPY IN NON-SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS PATIENTS FOLLOWED IN ADULT RHEUMATOLOGY DEPARTMENT: HUR-BIO REAL LIFE RESULTS

L. Kilic[1], A. Sari[1], B. Armagan[1], A. Erden[1], Ö. Karadag[1], A. Akdogan[1], S. Apras Bilgen[1], S. Kiraz[1], S. Ozen[2], U. Kalyoncu[1], A.I. Ertenli[1]. *[1]Department of Rheumatology; [2]Department of Pediatric Rheumatology, Hacettepe University Faculty of Medicine, Ankara, Turkey*

**Background:** Juvenile idiopathic arthritis (JIA) is the most common chronic rheumatic disorder in childhood and more than one-third of patients have active inflammation during adult years that can cause disability.
**Objectives:** To define the demographic and clinical characteristics of non-systemic JIA (ns-JIA) patients under biological therapy followed in adult rheumatology department.
**Methods:** Hacettepe University Biologic Registry (HUR-BIO) is a single center biological registry since 2005. HUR-BIO database includes demographic and clinical characteristics of patients, disease activity parameters, history of articular prosthesis. The use of biological agents in routine rheumatology practice has been approved by the Ministry of Health since 2003.
**Results:** In this study, 95 (72.6% women) ns-JIA patients were included. The demographic and clinical characteristics of the patients were shown in the table. The first biological agents were; Etanercept (63.2%), adalimumab (16.8%), infliximab (12.6%) and the others 7 (7.4%). After a mean follow-up of 60 (48) months, 42 (44.2%) patients required biologic switch. The last visit HAQ scores of 75 patients were known and 16 (21.3%) patients had HAQ score $\geq$1.0 (female 15/54 vs. male 1/21, p=0.029). The last visit DAS-28 score of 72 patients was known and 46 (63.9%) patients had remission or low disease activity. 14 patients (14.7%) had history of articular prosthesis and were all female. Patients with history of articular prosthesis were older [39.1±10.1 vs. 29.6±10.3 years, p<0.0001], had longer disease duration [25.7±6.6 vs. 17.2±11.9 years, p=0.001] and had longer time until the biological therapy [19.6±8.4 vs. 11.5±11.6 years, p=0.002]. The time until the biological therapy of 38 ns-JIA patients diagnosed after 2003 was shorter [3.2±2.9 vs. 19.4±10.6 years, p<0.001].

Table 1. The Demographic and Clinical Characteristics of the ns-JIA Patients

| | All Patients (n=95) | Female (n=69) | Male (n=26) | p |
|---|---|---|---|---|
| Age mean (SD) | 31.0 (10.8) | 32.2 (10.9) | 28.0 (10.0) | 0.025 |
| Age at first symptom, mean (SD) | 9.9 (5.0) | 9.5 (4.0) | 10.9 (4.9) | 0.22 |
| Age at diagnosis, mean (SD) | 12.5 (6.7) | 12.3 (7.3) | 13.2 (4.5) | 0.62 |
| Disease duration (year), mean (SD) | 18.5 (11.6) | 19.9 (11.2) | 14.6 (12.1) | 0.012 |
| Time until the biological therapy (year) mean (SD) | 12.7 (11.5) | 14.2 (11.5) | 8.7 (11.0) | 0,01 |
| History of hip or knee prosthesis, n (%) | 14 (14.7) | 14 (20.3) | 0 | 0.01 |
| RF or anti-CCP (+), n (%) | 42 (44.2) | 34 (49.3) | 8 (30.8) | 0.11 |
| Biological switch, n (%) | 42 (44.2) | 32 (46.4) | 10 (38.5) | 0.64 |
| Last visit HAQ mean (SD) | 0.51 (0.62) | 0.62 (0.67) | 0.22 (0.35) | 0.005 |
| Last visit DAS-28 mean (SD) | 2.85 (1.56) | 3.14 (1.47) | 2.18 (1.59) | 0.009 |

RF: romatoid factor, CCP: cyclic citrillinated peptide, ns-JIA: non-systemic JIA, HAQ: Health Assessment Questionnaire, SD: Standard deviation.

**Conclusions:** Structural damage and history of articular prosthesis was more common in female ns-JIA patients receiving biological therapy. Functional disability and disease activity were also higher in female patients. On the other hand, the follow-up ns-JIA patients had a good level of remission and low disease activity.The shorter duration until the time of biological treatment in patients diagnosed after 2003 indicates that both pediatric and adult rheumatologists have begun to treat these patients more effectively.
**Disclosure of Interest:** None declared
**DOI:** 10.1136/annrheumdis-2017-eular.4133

## THU0519 ETANERCEPT, ADALIMUMAB AND METHOTREXATE UTILIZATION BY JUVENILE IDIOPATHIC ARTHRITIS PATIENTS AND THE OCCURRENCE OF UVEITIS

K. Roshak[1], J.M. Sopczynski[2], R.M. Suehiro[3], L. Marshall[3]. *[1]Drexel University, Philadelphia; [2]R&d Bt Bi, Predictive Informatics; [3]Medical Affairs, Pfizer, Collegeville, United States*

**Background:** Juvenile idiopathic arthritis (JIA) is a chronic arthritis with an onset before 16 years of age, that persists for at least 6 weeks, and has an unknown etiology.[1] Uveitis is a serious and common extra-articular manifestation of JIA, affecting 12–30% of patients (most commonly female with ANA+ oligoarthritis JIA category).[2,3] JIA-associated uveitis can be treated with biologic disease modifying antirheumatic drugs (bDMARDs), including TNF inhibitors (TNFi) such as etanercept (ETN), infliximab (IFX), and adalimumab (ADA), after failure of first-line treatments, such as topical corticosteroids and/or conventional synthetic DMARDs (csDMARDs), such as methotrexate (MTX).[2] Of note, reports exist that ETN use has been associated with uveitis flares or new-onset uveitis while an observational study reported similar uveitis flare rates for both ADA and ETN.[4,5]
**Objectives:** To conduct an analysis on the occurrence of uveitis in patients with JIA treated with ETN, ADA, or MTX. Combination therapy of ETN, ADA, and MTX was also assessed.
**Methods:** International Statistical Classification of Diseases (ICD)-9 diagnosis codes in a Truven MarketScan® claims database were used to identify JIA patients diagnosed with uveitis over a 5-year interval. The analysis assessed the proportion of JIA patients (aged 0–19 years) treated with ETN, ADA, or MTX, as monotherapy or in combination. The percentage of patients diagnosed with uveitis and the time interval for uveitis diagnosis in patients with JIA was determined.
**Results:** A total of 22,789 patients with JIA where included in this analysis and exhibited a mean age of 11.4 years, were predominantly female (69%), and mean JIA disease duration was 3 years. This total included 19,814 patients with chronic, or not otherwise specified, polyarticular JIA. A total of 2581 (11.3%) patients, of mean age 10.2 years, of which 73% were female, were diagnosed with uveitis. The numbers of JIA patients receiving biologic and/or MTX therapy and proportions with a uveitis diagnoses are shown in the Figure.
**Conclusions:** This analysis showed a similar occurrence of uveitis in JIA patients treated with ETN or ADA, either as monotherapy or in combination with MTX.
**References:**
[1] Petty RE, et al. J Rheumatol 2004;31:390–2.
[2] Clarke SL, et al. Pediatr Rheumatol Online J 2016;14:27.
[3] Wentworth BA, et al. F1000Prime Rep 2014;6:41.
[4] Schmeling H, Horneff G. Rheumatology (Oxford) 2005;44:1008–11.
[5] Foeldvari I, et al. Arthritis Care Res 2015;67:1529–35.
**Disclosure of Interest:** K. Roshak: None declared, J. M. Sopczynski Shareholder of: Pfizer, Employee of: Pfizer, R. M. Suehiro Shareholder of: Pfizer, Employee of: Pfizer, L. Marshall Shareholder of: Pfizer, Employee of: Pfizer