of time, the highest numbers of signals were detected by FOI with 32% of joints, especially in phase 2 while by US/PD 20.7% and by clinical examination 17.5% were active. A high number of joints (21.1%) had FOI signals but were clinically inactive. 20.1% of joints with signals in FOI did not show effusion, synovial thickening or hyperperfusion by US/PD. Due to the high number of negative results specificity of FOI compared to clinical examination/US/PD was high (84–95%), sensitivity was moderate only.
Conclusions: Improvement upon treatment with either methotrexate or a biologic can be visualized by FOI. FOI and US/PD could detect clinical but also subclinical inflammation. FOI detected subclinical inflammation in higher extent than US.
Disclosure of Interest: None declared
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OP0058 IMPROVEMENT IN PATIENT-REPORTED OUTCOMES IN PATIENTS WITH POLYARTICULAR-COURSE JUVENILE IDIOPATHIC ARTHRITIS AND INADEQUATE RESPONSE TO BIOLOGIC OR NON-BIOLOGIC DISEASE-MODIFYING ANTIRHEUMATIC DRUGS TREATED WITH SC ABATACEPT

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Background: In patients (pts) with polyarticular-course juvenile idiopathic arthritis (pJIA), SC abatacept (ABA) 125 mg weekly has a similar pharmacokinetic profile, therapeutically equivalent efficacy and comparable safety to IV ABA 10 mg/kg every 4 weeks.[1] Although some data on paediatric pt-reported outcomes (PRO) have been published for IV ABA,[2] PRO data following treatment with SC ABA have not.
Objectives: This analysis examined the effect of SC ABA treatment on PROs (activities of daily living [ADL] limitation questionnaire of parent/caregiver, childhood HAQ [CHAQ]-DI, and parent global assessment of overall pt well-being [PaGA]) in 6–17-year pts with active pJIA in a Phase III trial (NCT01844518).
Methods: Pts with pJIA aged 2–17 years with an inadequate response/intolerance to $\geq$1 DMARD were enrolled in this single-arm, open-label study and received SC ABA weekly for 4 months based on body weight tier (10–<25 kg [50 mg ABA], 25–50 kg [87.5 mg ABA] and >50 kg [125 mg ABA]). JIA-ACR 30 criteria (ACR Pediatric 30) responders at Month 4 could receive ABA for another 20 months. For the 6–17-year cohort reported here, ADL limitation questionnaire of parent/caregiver (mean [SD] number of days [D] of parental/caregiver missed activity, paid care and missed school [absolute values per month and percentage of D missed per month relative to an assumed average of 20 school D/month]); CHAQ-DI (0–3 scale across 8 domains of disability component); and PaGA (0–100 mm visual analogue scale) were evaluated.
Results: Baseline characteristics of the 173 pts with pJIA from the 6–17-year cohort were: median (min, max) age, 13.0 (6.0, 17.0) years; median (min, max) number of active joints, 10.0 (2.0, 42.0); 78.6% of pts used MTX (median dose: 11.6 mg/m^2/week); and 26.6% were with prior biologic failure. All ADL limitation components improved from baseline to D113 (Month 4); these improvements were largely maintained at D309 (Figure). Relative percentage D missed from school decreased from 15% (D1) to 5.5% (D309, Figure D). CHAQ-DI and PaGA improved from baseline to D309 (Table). Further 2-year data are pending.

Table 1. CHAQ-DI and PaGA scores over time in the 6–17-year cohort

	Day						
	1 (n=170)	29 (n=170)	57 (n=170)	85 (n=167)	113 (n=166)	197 (n=144)	309 (n=89)
CHAQ-DI	0.99 (0.69)	0.82 (0.71)	0.73 (0.65)	0.63 (0.65)	0.61 (0.64)	0.52 (0.57)	0.46 (0.56)
PaGA (mm)	45.6 (25.97)	32.2 (24.56)	28.7 (24.58)	23.8 (23.59)	23.6 (24.32)	20.0 (23.04)	21.7 (23.58)

Data are mean (SD). For CHAQ-DI (scale 0–3) and PaGA (0–100 mm visual analogue scale), higher scores indicate greater dysfunction and lower well-being, respectively.

Conclusions: In this analysis of patients with pJIA aged 6–17 years, SC abatacept demonstrated a beneficial effect on PROs including reductions in activity limitation and disability (CHAQ-DI) and improvement in well-being (PaGA) up to D309.
References:
[1] Lovell D, et al. Arthritis Rheumatol 2016;68(suppl 10): Abstract 948.
[2] Ruperto N, et al. Arthritis Care Res 2010;62:1542–51.
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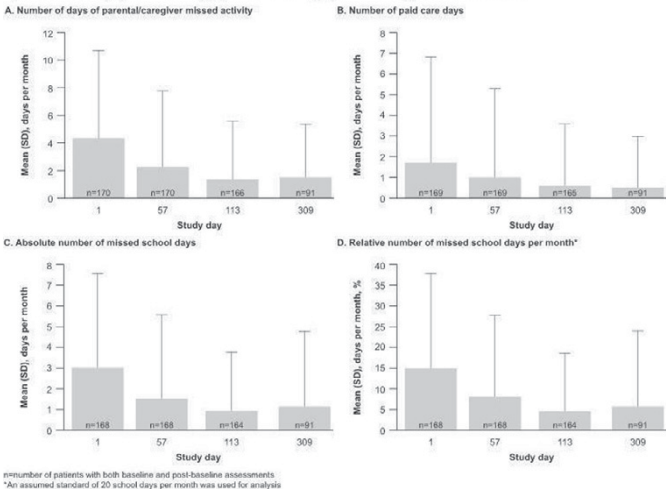
Figure. Change Over Time in Activities of Daily Living Limitation (A, Days of Parental/Caregiver Missed Activity; B, Paid Care Days; C, Missed School Days [Absolute Values]; D, Missed School Days [Relative Values]) in 6–17-Year Patients



n=number of patients with both baseline and post-baseline assessments
*An assumed standard of 20 school days per month was used for analysis

OP0059 GOLIMUMAB VERSUS TOCILIZUMAB FOR SEVERE AND REFRACTORY JUVENILE IDIOPATHIC ARTHRITIS-UVEITIS. MULTICENTER STUDY OF 33 PATIENTS

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Background: Uveitis is a severe manifestation of Juvenil Idiopathic Arthritis (JIA). Anti-TNFa are recommended in refractory cases, mainly infliximab (IFX) or adalimumab (ADA) (Levy-Clarke et al. Ophthalmology 2014; 121: 785–796). However, sometimes they are ineffective, contraindicated or not tolerated. The next therapeutic step is not defined.
Objectives: To compare the efficacy of Golimumab (GLM) and Tocilizumab (TCZ) in related AIJ uveitis refractory to conventional immunosuppressive drugs and anti-TNFα.
Methods: Multicenter study of 33 patients with uveitis associated-JIA. They were refractory to conventional treatment with high dose of corticosteroids and at least a) one conventional immunosuppressive drug and b) one anti-TNFa. For this reason it was decided to iniciate TCZ or GLM. TCZ was used in 25 patients: 8 mg/kg/4 w iv (n=21), 8 mg/kg/2 w (n=2); 8 mg/kg/8 w (n=1) and 2.9 mg/kg sc/w (n=1). GLM was used in 8 patients (50 mg/sc/month). We assessed visual acuity (VA), degree of intraocular inflammation, vitreous inflammation and macular thickening (with OCT). Quantitative variables were expressed with mean±SD or median [IQR], according to its distribution. They were compared with the Student t or the Mann-Whitney U test, respectively. Dichotomous variables were expressed as percentages and compared by the chi-square test.
Results: We studied 33 patients/61 affected eyes. There were no significant differences between TCZ and GLM at baseline in sex (♂/♀;4/21 vs 3/5; p=0.19), mean age (18.5±8.3 vs 19.9±8.7; p=0.55), positive ANA (95% vs 100%; p=0.7), uveitis duration before TCZ or GLM onset (116.4±93.6 vs 142.3±74.7

p=0.46), number of previous biological treatments (1.9±1.1 vs 2±1.4; p=0.84), VA (0.57±0.35 vs 0.5±0.37; p=0.42), combined immunosuppressive therapy (88% vs 75%; p=0.37), presence of cells in the anterior chamber (median, 1 [0–1] vs 1 [0.25–1.5]; p=0.6), vitritis (0 [0–0] vs 0 [0–1]; p=0.7), macular thickening (358.7±92.2 vs 313.6±77.1; p=0.32).
There were no significant difference in the efficacy between TCZ and GLM (TABLE).
After a mean follow-up of 20.48±11.7 months with TCZ and 24.25±17 months with GLM the following side effects were observed: TCZ: viral conjunctivitis plus bullous impetigo (n=1), severe thrombocytopenia and pneumonia. This last patient showed hemolytic anemia, thrombocytopenia and splenomegaly, for this reason treatment with TCZ was discontinued. With GLM cutaneous reaction was observed in 2 patients.

Table. Evolution of ocular parameters with TCZ and GLM

	TCZ (n=25)	GLM (n=8)	p
BASELINE			
VA	0.57±0.35	0.5±0.36	0.43
Cells in the anterior chamber	0.92±0.81	2.79±4.82	0.63
Vitritis	0,43±0,91	0.33±0.5	0.78
OCT	358.69±92.17	313.60±77.05	0.31
1ST MONTH			
VA	0.59±0.33	0.56±0.32	0.75
Cells in the anterior chamber	0.26±0.52	2.33±4.57	0.083
Vitritis	0.31±0.71	0±0	0.32
OCT	313.40±91.28	292.50±111.42	0.57
6TH MONTH			
VA	0.63 ±0.32	0.62 ±0.33	0.85
Cells in the anterior chamber	0,1±0,34	0±3,28	0.43
Vitritis	0,07±0,33	0,25±0,62	0.62
OCT	274,91±101,32	261,37±75,15	0.94
1ST YEAR			
VA	0.63 ±0.34	0.54 ±0.31	0.35
Cells in the anterior chamber	0±0.2	0±0	0.71
Vitritis	0.058±0.23	0±0	0.81
OCT	245.45±29.34	255±120.8	0.74

Results are expressed as mean±SD

Conclusions: TCZ and GLM seem to be equally effective and safe for refractory uveitis associated-JIA. The superiority of one or the other should be established with prospective randomized studies "Head to Head"
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OP0060 HEALTH BEHAVIOR IN ADOLESCENTS WITH JUVENILE IDIOPATHIC ARTHRITIS- RESULTS OF THE INCEPTION COHORT OF NEWLY DIAGNOSED PATIENTS (ICON)

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Background: Knowledge concerning health behavior in adolescents with juvenile idiopathic arthritis (JIA) is essential for assessing their health risks. Although there is some evidence about a relationship between low socioeconomic status (SES) and health risk behavior in adulthood, it is less clear whether this association is also true for adolescents with JIA.
Objectives: To compare the health behavior between adolescents with JIA and healthy peers and to examine the association with sex and SES.
Methods: Data of adolescents (aged 13 to 17) with JIA and healthy peers enrolled in ICON were considered for this analysis. Health behavior was assessed via questionnaire within the first years of disease. SES- Score (low, moderate, high) was determined by using an established German multidimensional aggregated index and based on the parents' education level as well as household net income.
Results: A total of 334 adolescents with JIA (61% female, mean age 15.1 (SD 1.1), mean disease duration 1.3 (SD 1.7)) and 181 healthy peers (57% female, mean age 15.3 (SD 1.3)) were included. Adolescents with JIA were less physically active and reported less consumption of alcohol compared with healthy peers (see Table). In both groups, boys were more frequently physically active and spent more time in playing video games than girls. Whereas girls with and without JIA used more often mobile phones than boys. No gender specific differences in both groups were found in consumption of illicit and legal drugs.
After stratification in groups according to the SES- Scores, socioeconomic differences were the same in adolescents with JIA and healthy peers. Teenagers with low social background (n=200) spent significantly more time in consumption of TV, mobile phones and video games than those from families with high SES (n=122). No significant relationship was found between parental SES and alcohol, nicotine and drug consumption by adolescents. The parental SES- Score was strongly associated with the education level of adolescents.

	Adolescents with JIA (n=334)	Healthy peers (n=181)	p-value
Watching TV <1h/day, n (%)	110 (33%)	68 (38%)	0.3
Playing games and computer use <1h/day, n (%)	121 (37%)	61 (34%)	0.6
Mobile phone use <1h/day, n (%)	159 (48%)	94 (52%)	0.4
Physical activity ≥ once per week, n (%)	226 (80%)	169 (94%)	<0.001
No smoking, n (%)	313 (94%)	173 (96%)	0.3
No consumption of alcohol, n (%)	168 (52%)	70 (40%)	<0.01
No consumption of illicit drugs in the last 12 months, n (%)	301 (96%)	162 (96%)	0.9
Ever sexual intercourse, n (%)	27 (8%)	13 (7%)	0.7

Conclusions: Adolescents with JIA have a similar health behavior as healthy peers, except for alcohol consumption and physical activity level. Gender and socioeconomic status are associated with health behavior of adolescents with and without JIA. Parental SES may affect adolescents' educational outcomes.
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OP0061 DIFFUSE ALVEOLAR HEMORRHAGE: A MULTICENTER STUDY IN 847 CHILDHOOD-ONSET SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS

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Background: Data of diffuse alveolar hemorrhage (DAH) in childhood-onset systemic lupus erythematosus (cSLE) patients are limited due to the small representation of this complication in previous case series or the focus on the comparison to adult SLE, precluding an accurate analysis of associated factors and outcomes in patients with and without this severe complication.
Objectives: To evaluate prevalence, clinical manifestations, laboratory abnormalities and treatment in a multicenter cohort study including 847 cSLE patients with and without diffuse DAH, as well as concomitant parameters of severity.
Methods: DAH was defined as the presence of at least three respiratory symptoms or signs associated with diffuse interstitial/alveolar infiltrates on chest x-ray or high-resolution computer tomography and sudden drop in hemoglobin levels with no other source of bleeding. Holm-Bonferroni correction for multiple comparisons was performed adjusting the significance level ($p<0.0022$).
Results: DAH was evidenced in 19/847 (2.2%) cSLE patients. Cough/dyspnea/tachycardia/hypoxemia occurred in all cSLE patients with DAH. Concomitant parameters of severity observed were: mechanical ventilation in 14/19 (74%), hemoptysis 12/19 (63%), macrophage activation syndrome 2/19 (10%) and death 9/19 (47%). Further analysis of cSLE patients at DAH diagnosis compared to 76 cSLE control patients without DAH with same disease duration [3 (1–151) vs. 4 (1–151) months, p=0.335], showed higher frequencies of constitutional involvement (74% vs. 10%, $p<0.0001$), serositis (63% vs. 6%, $p<0.0001$) and sepsis (53% vs. 9%, $p<0.0001$) in the DAH group. The median of disease activity score (SLEDAI-2K) was significantly higher in cSLE patients with DAH [18 (5–40) vs. 6 (0–44), $p<0.0001$]. The frequencies of thrombocytopenia (53% vs. 12%, $p<0.0001$), intravenous methylprednisolone (95% vs. 16%, $p<0.0001$) and intravenous cyclophosphamide (47% vs. 8%, $p<0.0001$) were also significantly higher in DAH patients.
Conclusions: This is the largest study to evaluate DAH. This complication, although not a disease activity score descriptor, occurs in the context of significant moderate/severe cSLE flare. Importantly, we identified that this condition is associated with serious disease flare complicated by sepsis and with high mortality rate.
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