corticoesteroids, malabsortive disorders, chronic systemic disorders such as nephropathies or hematologic diseases, etc. The patients or their legal tutors signed the Informed Consent in order to participate in the study. The average daily calcium intake was collected through the Spanish INDICAD 2001 study survey, together with a comprehensive anamnesis. If patients or their family reported taking food not included in the survey, its calcium content were consulted in the Spanish Food Composition Database published by the BEDCA Network of the Ministry of Health Science and Innovation

Results: Data were collected from 50 patients, with a mean age of 9.2 years (2–20), 28 (56%) female, 86% Caucasian, 6% Arab, 2% Asian and 6% Latin. The most frequent diagnoses were: Food intolerances/malabsorption: 32%, nephropathies: 22%, JIA: 16%, vasculitis: 10%, other inflammatory diseases: 8%. 42% had received systemic corticosteroids at some point, and 16% were receiving corticosteroids at present. Average daily calcium intake was 718 mg/d. They were divided by age groups, attending to daily calcium needs per group. In Table 1 we can observe the Recommended Daily Amount (RDA) of calcium by the Spanish Association of Pediatrics and the consumption collected, by age group.

Age group	% Age group	RDA (mg/d)	Average intake (mg/d) ± SD	Range: min–max (mg/d)	% That reaches RDA
Pre-escholar (2–3 a)	14%	700	819±280	513–1346	57.1%
Escholar (4–9 a)	32%	1000	702±240	254–1075	18.8%
Teenagers (10–17a)	48%	1300	689±350	350–1925	8.3%
Young (18–20 a)	6%	1100	797±182	621–985	0%

Only 3 children with low calcium intake were taking supplements.A decrease in calcium RDA adherence was observed with increasing age, statistically significant (p=0.009). There was also a lower calcium intake in the non-Caucasians compared to Caucasians statistically significant (p=0.044), which was not associated with age.

Conclusions: Calcium intake in the population under 21 years old with at least 1 risk factor for developing low bone mass/osteoporosis is lower than recommended. In addition, recommendations are based on the physiological needs of the healthy population and it could be expected to be insufficient for those with chronic diseases. It should be noted that calcium intake in the groups with higher requirements (adolescents and young people) is lower, with a reduction in the proportion of patients who meet the compliance with the RDA as age increases. Studies with a larger population are needed to ratify these results together with serum calcidiol levels

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.2049

AB0949 THE ANNUAL COST OF PATIENTS WITH JUVENILE IDIOPATHIC ARTHRITIS

B. Serpen[1], O. Altug-Gucenmez[1], C. Acari[1], M.K. Sozmen[2], B. Makay[1], S.E. Unsal[1]. [1]*Faculty of Medicine, Unit of Pediatric Rheumatology, Dokuz Eylul University;* [2]*Faculty of Medicine, Department of Public Health, Izmir Katip Celebi University, Izmir, Turkey*

Background: The management of juvenile idiopathic arthritis (JIA) includes various methods including such as medication, hospitalization, rehabilitation.

Objectives: To determine how much juvenile idiopathic arthritis cost; the components of this cost; how new treatments, i.e. biologics, improve the disease course and hospital expenditures.

Methods: This study was conducted in Dokuz Eylul University, Pediatric Rheumatology Unit between March 2015-March 2016. One-hundred six JIA patients who had a follow-up period of at least 1 year according to International Edmonton 2001 criteria were included. This retrospective cost study evaluated the data of these patients and calculated the direct cost for the follow-up period. Clinical data was collected from patient files that were in department's archive and cost data was gathered from Probel Hospital Information Management system. Patient data form covering sociodemographic and clinical information, patient drug form and annual medical cost form was filled out for each patient.

Results: 58.5% (n=62) of patients was female and 41.5% (n=44) was male. The mean age was 12.0±4.3 years. 34.0% (n=36) of patients was oligoarticular type, 28.3% (n=30) was poliarticular type, 22.6% (n=24) was enthesitis related arthritis (ERA), 8,5% (n=9) was psoriatic type and 6.6% (n=7) was systemic type. The cost of medication counted for 88.3% (453244.94 TL) of total direct annual cost. Total direct medical cost was highest for ERA (n=7742.55±9891 TL). While the annual cost was calculated as 10451 TL per person for biologic using patients, for the patients using non-biologic treatments it was determined as 1472 TL per person. 1 TL=0.32 € 1 TL =0.35 $

Conclusions: Medication is responsible for most of the total direct medical cost in patients with JIA. Our results showed concordance with previous studies on the subject. This situation could be attributed to biologic agents that are being used in treatment in recent years. More prospective studies on the effectiveness of cost of treatment, with greater amount of patient and more homogenous subgroups are needed.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.5743

AB0950 PREDICTORS OF RESPONSE TO ETANERCEPT TREATMENT DEPENDING ON JUVENILE IDIOPATHIC ARTHRITIS CATEGORY

E. Kashchenko[1], E. Alexeeva[1,2], T. Bzarova[1,2], S. Valieva[1], R. Denisova[1], O. Lomakina[1], K. Isaeva[1], M. Soloshenko[1], A. Karaseva[1]. [1]*Federal State Autonomous Institution "National Scientific and Practical Center of Children's Health" of the Ministry of Healthcare of the Russian Federation;* [2]*I.M. Sechenov First Moscow State Medical University, Moscow, Russian Federation*

Background: Anti-TNF biologics are highly effective and widely used in clinical practice for the treatment of JIA. However, some children lack of response with few reliable predictors of a good or poor response to treatment found [1–3]. As clinical picture patterns are significantly differ for 7 JIA subclasses, we propose to found predictors of response to therapy for each of JIA category.

Objectives: To identify clinical and laboratory parameters associated with response to etanercept treatment in 12 months in patients with different JIA category.

Methods: Patients from four JIA categories (n=195) were divided to groups with excellent, intermediate and poor response after 12 month treatment with etanercept according to ACRPedi criteria, achieving inactive disease by Wallace criteria and JADAS-71 cut-off point. For each of JIA category univariate and multivariate logistic regression analysis was conducted to identify potential baseline factors associated with treatment response. Baseline factors included clinical, laboratory and anamnestic data.

Results: From total cohort 91/90/85/68.5 percent of patients achieved ACR30/50/70/90 in one year etanercept treatment; 45.5% patients were considered excellent responders, 30% - intermediate responders, and 24.5% - poor responders. Highest efficacy of therapy was shown in persistent oligoarthritis patient, lowest – in enthesitis-related arthritis and polyarthritis patients. Potential baseline predictors of excellent and poor response which were significant are described in the table.

JIA category	Predictors of excellent response	Predictors of poor response
Persistent oligoarthritis	smaller amount of DMARD	–
Extended oligoarthritis	shorter disease duration (DD)	–
Enthesitis-related arthritis	–	– longer DD
RF-negative polyarthritis	– smaller number of joints with limited range of motion (LOM) – lower CRP level at the baseline – younger age at disease onset (ADO)	– longer DD – older ADO

Analysis showed that poor response in all JIA categories was mainly associated with demographic data (longer DD and older ADO). However, factors associated with excellent response significantly differed depending on JIA category (anamnestic factors, number of involved joints, laboratory factors, and demographic factors).

Conclusions: Response to etanercept therapy is strongly associated with JIA category. Shorter disease duration and lower number of DMARDs used before start of etanercept, lower number of joints with LOM, and lower C-reactive protein at baseline are predictors of better response to etanercept.

References:

[1] Otten MH, et al. JAMA 2011;306:2340–7.
[2] Kearsley-Fleet L, et al. Rheumatology (Oxford) 2016;55:840–7.
[3] Solari N, et al. J Rheumatol 2013;40:192–200.

Disclosure of Interest: E. Kashchenko Grant/research support from: Novartis, E. Alexeeva Grant/research support from: Roche, Abbott, Pfizer, Bristol-Myers Squibb, Centocor, Novartis, Speakers bureau: Roche, Merck Sharp & Dohme, Abbott, Bristol-Myers Squibb, Medac, Novartis, Pfizer, T. Bzarova Grant/research support from: Roche, Pfizer, Novartis, Speakers bureau: Roche, Merck Sharp & Dohme, Abbott, Pfizer, S. Valieva Grant/research support from: Roche, Bristol-Myers Squibb, Speakers bureau: Roche, Merck Sharp & Dohme, Bristol-Myers Squibb, Medac, Novartis, R. Denisova Grant/research support from: Roche, Centocor, Novartis, Speakers bureau: Roche, Merck Sharp & Dohme, Abbott, Medac, O. Lomakina: None declared, K. Isaeva Grant/research support from: Roche, Novartis, M. Soloshenko: None declared, A. Karaseva: None declared

DOI: 10.1136/annrheumdis-2017-eular.3918

AB0951 FACTORS ASSOCIATED WITH RESPONSE TO ADALIMUMAB TREATMENT IN JUVENILE IDIOPATHIC ARTHRITIS

E. Kashchenko[1], E. Alexeeva[1,2], T. Bzarova[1,2], S. Valieva[1], R. Denisova[1], O. Lomakina[1], K. Isaeva[1], M. Soloshenko[1], A. Karaseva[1]. [1]*Federal State Autonomous Institution "National Scientific and Practical Center of Children's Health" of the Ministry of Healthcare of the Russian Federation;* [2]*I.M. Sechenov First Moscow State Medical University, Moscow, Russian Federation*

Background: Tumor necrosis factor inhibitors are highly effective and safe in treatment of juvenile idiopathic arthritis (JIA). Nonetheless, to select the optimal therapy and to achieve maximum therapeutic effect it is necessary to consider the individual characteristics of the patient. Adalimumab (ADA) is widespread use for mild and severe polyarticular JIA especially in the presence of uveitis, but there is lack of data about clinical and laboratory predictors of response to ADA in different JIA categories.

Objectives: To identify clinical and laboratory parameters associated with

Abstract AB0951 – Table 1

Factors	Excellent response to ADA	Poor response to ADA
CHAQ score	lower at start of ADA (ExtOligo)	–
VAS disease activity by patient/parent	higher at start of ADA (ERA)	lower at start of ADA (ERA)
VAS disease activity by physician	–	lower at start of ADA (PersOligo)
Need for corticosteroid eye drops (for uveitis patients)	Absence in anamnesis (PersOligo)	–
Morning stiffness	Shorter at start of ADA (ERA), longer at start of ADA (PersOligo)	–
Joints with active arthritis	–	higher at start of ADA (PolyRF-)
erythrocyte sedimentation rate (ESR)	–	lower at start of ADA (PolyRF-)

response to adalimumab treatment in 12 months in patients with different JIA category.

Methods: Analysis include patients with enthesitis-related arthritis (ERA, n=56), RF-negative polyarthritis (polyRF-, n=50), extended oligoarthritis (extOligo, n=30), and persistent oligoarthritis (persOligo, n=62) with median age 10.5 (IQR 7–14) and median JADAS-71 19.5 (IQR 15–28). Patients were divided to response groups after 12 month treatment with ADA according to ACRPedi criteria, achieving inactive disease by Wallace criteria and JADAS-71 cut-off point as excellent, intermediate and poor responders. For each of JIA category univariate and multivariate logistic regression analysis was conducted to identify potential baseline factors associated with treatment response. Baseline factors included clinical, laboratory and anamnestic data.

Results: ADA was shown to be effective in all groups with 90%/89%/82%/63% children with ACR30/50/70/90 during one year therapy. The most significant factors ($p<0.05$) associated with response to ADA treatment are presented in summarized table.

Our findings demonstrated that different predictors corresponded with different JIA categories. Interestingly subjective scales of disease activity was shown to be strongly associated with response to therapy. At the same time VAS severity at baseline were inversely correlated with achievement of good response. Duration of morning stiffness correlated with excellent response in children with 2 different categories. However, for ERA patients shorter duration was associated with better response to treatment while vice versa for PersOligo patients.

Conclusions: Predictors of response to ADA treatment differ in JIA categories. Low disease activity parameters (clinical and laboratory) at baseline not always predict good response to therapy.

Disclosure of Interest: E. Kashchenko Grant/research support from: Novartis, E. Alexeeva Grant/research support from: Roche, Abbott, Pfizer, Bristol-Myers Squibb, Centocor, Novartis, Speakers bureau: Roche, Merck Sharp & Dohme, Abbott, Bristol-Myers Squibb, Medac, Novartis, Pfizer, T. Bzarova Grant/research support from: Roche, Pfizer, Novartis, Speakers bureau: Roche, Merck Sharp & Dohme, Abbott, Pfizer, S. Valieva Grant/research support from: Roche, Bristol-Myers Squibb, Speakers bureau: Roche, Merck Sharp & Dohme, Bristol-Myers Squibb, Medac, Novartis, R. Denisova Grant/research support from: Roche, Centocor, Novartis, Speakers bureau: Roche, Merck Sharp & Dohme, Abbott, Medac, O. Lomakina: None declared, K. Isaeva Grant/research support from: Roche, Novartis, M. Soloshenko: None declared, A. Karaseva: None declared

DOI: 10.1136/annrheumdis-2017-eular.4011

AB0952 EXPERIENCE OF TOCILIZUMAB USE IN TREATMENT OF JUVENILE IDIOPATHIC ATRTRITIS IN CHELYABINSK REGIONAL CHILDREN HOSPITAL

G.A. Glazyrina[1], N.A. Kolyadina[2]. *[1]South Ural Governmental Medical University; [2]Chelyabinsk Regional Children Hospital, Chelyabinsk, Russian Federation*

Background: Recently due to application of interleukin (IL)-6 inhibitors prognosis for systemic juvenile idiopathic arthritis (sJIA) has significantly improved. 526 children with JIA are under monitoring in Chelyabinsk region, 42 children have sJIA. Tocilizumab is the drug of choice for sJIA treatment. It is registered within the Russian Federation for use in children older than 2 years. In Chelyabinsk Regional Children Hospital tocilizumab has been used for 5 years.

Methods: 18 children (12 boys, 6 girls) aged from 2 to 17 (mean age 10.7 years) diagnosed with sJIA were under monitoring. Disease duration was from 6 months to 15 years (mean duration 6 years). JIA was diagnosed based on ILAR diagnostic criteria. SJIA was diagnosed in 16 children, sero-negative polyarthritis was diagnosed in 2 children. Tocilizumab was introduced intravenously every 2 or 4 weeks in dose of 12 mg/kg for children <30 kg or 8 mg/kg for children ≥ 30 kg. Therapy duration was from 3 months to 5 years (average duration 23 months). Assessment of disease activity and therapy efficiency was conducted in accordance with ACR pedi criteria. Nonparametric statistical methods were used to compare results.

Results: Prior to tocilizumab use high disease activity was observed in all children. Average number of joints with active arthritis was 13,5 [6;15] (Me [25;75%]). Average number of joints with functional impairments – 12,5 [6;15]. Average ESR (according to Panchenkov) – 50 [40;60]mm/h, CRP 98,6 [55;139]g/L. Assessment of functional activity according to CHAQ questionnaire- 2,09 [2;2,5]. Activity assessment according to VAS by doctor – 82 [75;90]. Assessment of parents according to VAS 84 [80;90]. No eye lesions were found in children under monitoring. All 16 children with sJIA had fever, hepatosplenomegaly and lymphadenopathy, the rash had 11 children, polyserositis - 8. In 5 children there was a complication in the form of a syndrome of macrophage activation.

During the tocilizumab therapy a decrease in disease activity was observed in all patients. Mean number of joints with active arthritis was 1 [0;2] (Me [25;75%]) (P=0.0002). Mean number of joints with functional impairments – 3 [0;3] (P=0.0003). Average ESR was 4 [3;5]mm/h (P=0.00002), CRP 0,75 [0;1]g/L (P=0.0003). Assessment of functional activity according to CHAQ questionnaire was 0,25 [0;0.5] (P=0.0004). Activity assessment according to VAS by doctor – 16 [10;20] (P=0.0002). Assessment of parents according to VAS 18 [10;20] (P=0.0002).

Clinical disease remission (according to ACR pedi criteria– $\geq$90%) was observed in 11 patients after 6–9 months of treatment. Remission duration up to now is from 3 months to 4 years. Efficiency according to ACR pedi criteria is 70% in 6 children, 50% in 1.

The drug was well-tolerated. Undesirable effect such as allergic skin reactions were observed only in one child. In one child the lack of efficiency produced by switching to canakinumab. Drug was cancelled in 3 patients due to long-term remission (3–4 years), but 2 of them after a year needed the resumption of therapy in connection with the aggravation of the disease.

Conclusions: Tocilizumab therapy was highly effective and safe in patients with JIA. Clinical remission was achieved in 61,1% children. Decrease in disease activity was observed in 39,9% of children. No serious undesirable effects were reported.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.3354

AB0953 ARTHRITIS FOLLOWING PARASITIC INFECTION IN THE DIFFERENTIAL DIAGNOSIS OF JUVENILE IDIOPATHIC ARTHRITIS

M. Maschio[1], S. Pieropan[2], F. Caldonazzi[1], G. Dallagiacoma[2], V. Ravagnani[3], D. Degani[1], G. Piacentini[1], D. Biasi[2], M. Rossini[2]. *[1]UOC pediatria; [2]UOC reumatologia, AOUI, Verona; [3]Reumatologia, Azienda Ospedaliera Carlo Poma, Mantova, Italy*

Background: According to literature arthritis is a rare complication following parasitic infection. In the italian pediatric population parasitic infection is manly caused by Enterobius Vermicularis; it is often asymptomatic but common symptoms can be anal nocturnal itching, insomnia, irritability, abdominal pain together with arthralgia

Objectives: To describe cases of mono or poliarthritis due to parasitic infection in young patients followed at the Verona's Pediatric Rheumathology Clinic from 2010 to 2016

Methods: Medical records of 8 patients followed at the Pediatric Rheumatology were analyzed. The mean age of 8 patients was 8 (F:M 3:5). The following data were evaluated: anamnesis data, clinical symptoms (anal itching, irritability, arthralgia, abdominal pain and arthritis), Blood test and scotch tape test. All patients underwent joint ultrasound (US). Physical symptoms of joint's involvement were evaluated in all children by an experienced rheumatologist.

Results: 6 patients had symmetrical poliathirtis, 2 patients had monoarthritis (knee and hand). Symptom's complaint were systemic (12,5%), abdominal (25%), and general pruritus (25%).Blood test confirmed high inflammation indices (25%) and hypereosinophilia (12,5%).Serological tests and stool investigations allowed to diagnose the following infections: Enterobius vermicularis (6 cases) giardia lamblia (1 case); dientaomeba fragilis (1 case).Joint US evidenced synovium hyperplasia in 75% of the cases and tenosynovitis in 50% of the cases.After appropriate antiparasitic treatment complete articular and systemic symptomatic remission was observed (100% cases); also joint US control normalized.2 cases, after about 6 months, were re-evaluated for arthritis relapse and in both cases a parasitic reinfection was confirmed.

Conclusions: Analysis of this series of patients underlines the following data: arthritis can be a manifestation of parasitic infection; treatment must be aimed against the parasite involved in order to achieve complete clinical and laboratory data remission; reinfection must always be considered in cases of relapse; differential diagnosis of this form of arthritis with other chronic polyarthritis is fundamental due to the risk of disseminated infection in case of immunosuppressive treatment

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2017-eular.4876