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AB0734

REMISSION IN JUVENILE IDIOPATHIC ARTHRITIS AFTER WITHDRAWAL OF SYSTEMIC TREATMENT

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Background: Juvenile idiopathic arthritis (JIA) requires frequent systemic treatments, the ideal goal being to achieve remission. Questions remain as to when treatment can be stopped and how to balance the risks and benefits of continuing medications against the possibility of a flare after discontinuation. There is currently little conclusive evidence on the management of JIA in remission.

Objectives: To determine the time to remission and frequency of flares in patients with JIA after withdrawal of systemic treatment in a single-centre cohort.

Methods: Patients with JIA visited in the last 15 years were included. A retrospective cross-sectional study was performed. Demographic data such as sex, age at diagnosis, current age, subcategories of JIA were collected. Systemic treatment was also collected (date of discontinuation, date of flare after discontinuation, time in remission, time of treatment until discontinuation, discontinuation of biologic therapy while maintaining methotrexate). For the analysis of qualitative variables, absolute and relative frequencies were used; for quantitative variables, median and IR; for comparative analysis, Chi-square and Mann-Whitney U test.

Results: We included 146 patients with JIA. Demographic data are shown in Table 1. 134 (90.4%) patients required systemic treatment (synthetic and/or biological DMARDs), of which 61 (45.5%) discontinued treatment completely at some point. Of the total number of patients who discontinued all systemic treatment, 19 (31.1%) had a flare with a median time in remission of 4.1 years (IR 1.3-9.1), 17 of the 134 patients (12.7%) with systemic treatment discontinued biologic therapy while maintaining methotrexate, of which 12 (70.6%) patients had a flare with a median time in remission of 0.9 years (IR 0.6-1.2). The differences between the frequency of flares and median time in remission between both treatment discontinuation groups (all systemic treatment versus discontinuation of biologic while maintaining methotrexate) were statistically significant ($p < 0.001$). The median time from systemic treatment to complete withdrawal was 3.2 years (IR 1.9-4.8).

Table 1. Demographic characteristics of patients with JIA

Variables	N 146
Sex: Women n (%)	89 (60.3)
Age at onset (years, median (IR))	4.6 (2.5-9.2)
Current age (years, median (IR))	16.7 (11.1-20.9)
Types of JIA:	
Persistent oligoarticular n (%)	66 (45.2)
Extended oligoarticular n (%)	11 (7.5)
Polyarticular RF - n (%)	29 (19.9)
Polyarticular RF + n (%)	3 (2.1)
Enthesitis-related n (%)	12 (8.2)
Psoriatic n (%)	9 (6.2)
Systemic n (%)	16 (11.0)

Conclusion: One third of the patients in whom all systemic treatment was withdrawn had a flare (70% remain in remission without medication) with a median time in remission of 4 years. On the other hand, two-thirds of patients in whom biologic therapy was withdrawn while maintaining methotrexate had a flare, with a shorter time in remission. The differences between both groups with withdrawal of systemic treatment are statistically significant ($p < 0.001$).

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AB0735

POLYMORPHISMS OF GENES CD14, C-REACTIVE PROTEIN, FIBRINOGEN BETA CHAIN, ASSOCIATED WITH THE DEVELOPMENT OF KAWASAKI DISEASE AND CORONARY ARTERY ANEURYSMS IN CHILDREN FROM CENTRAL RUSSIA

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Background: Kawasaki disease (KD) is a multifactorial disease with a genetic predisposition, systemic vasculitis complicated by the formation of coronary artery aneurysms (CAA). Its pathogenesis is based on immune inflammation with an increase in the concentration of pro-inflammatory cytokines, the level of C-reactive protein (CRP), and coagulation disorder.

Objectives: to search for polymorphisms of genes cluster of differentiation CD14, CRP, fibrinogen beta chain (FGB), associated with the KD development and a predisposition to the CAA formation among patients with KD living in Moscow and the Moscow region.

Methods: genotyping for gene polymorphisms CD14 -159 C>T (rs2569190), CRP 3872 C>T (rs1205), FGB - 455 G>A (rs1800790) by PCR in 31 children 1 month - 10 years old (median age 19 months [9.0; 38.5]) with KD, among them, in 10 patients the disease was complicated by CAA formation according to echocardiography, and 30 children of the control group.

Results: Three out of six investigated SNPs showed statistically significant difference in genotype and allele distribution: CRP C3872T, CD14 C159T and FGB G455A. CRP gene polymorphism: in patients with KD significantly less frequent is homozygous type TT (RR 0.22, 95% CI: 0.05-0.91, $p = 0.0168$).

CD14 gene polymorphism: in control group heterozygous genotype CT is predominant, (RR 0.58, 95% CI: 0.4-0.83, $p = 0.0017$) among patients with KD homozygous genotypes CC and TT are predominant. (RR 3.61, 95% CI: 1.14-11.49, $p = 0.0057$).

FGB gene polymorphism: genotype GA is predominant in control group (RR 0.48, 95% CI: 0.26-0.9, $p = 0.0149$). In patients with KD significantly less frequent is homozygous type GG (RR 1.69, 95% CI: 1.03-2.8, $p = 0.0297$).

We didn't find any significant difference in genotype and allele distribution in KD patients with and without CA lesions.

Conclusion: statistically significant differences ($p < 0.05$) were revealed in the distribution of genotypes for polymorphisms of the CD14 -159 C>T, CRP 3872 C>T and FGB -455 G>A genes among patients with KD and children of the control group; when comparing the results of KD patients with CAA and the control group, statistically significant differences ($p < 0.05$) were revealed only in the polymorphism CD14 -159 C>T. It can be assumed that these polymorphisms are associated with the development of KD and CAA in these patients.

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AB0736

JUVENILE IDIOPATHIC ARTHRITIS IN ADULTHOOD: TRENDS OF THE DISEASE AND SOCIO-PROFESSIONAL FUTURE

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Background: Juvenile idiopathic arthritis (JIA) is the most common arthropathy of childhood that may lead to physical disability and reduced quality of life, thus hindering the ability of the patients to achieve a meaningful adult life.

Objectives: The aim of this study was to assess the trends of the disease and socio-professional future.

Methods: We conducted a retrospective study including adult patients aged > 18 years with a history of JIA according to the International League of Associations for Rheumatology (ILAR). Collected data included age, sex, the

characteristics of the disease (subtype of JIA, disease duration). The level of education, marital status as well as the profession were recorded.

Results: The study included 32 patients with a female predominance: sex ratio was 1,5. The mean age was 29,5 years old [18-64]. The mean age of onset of the disease was 6 years and 2 months [2-17]. The frequency of each JIA subset was as follows: polyarticular with rheumatoid factor (n= 14), polyarticular without rheumatoid factor (n=9), systemic (n= 2), enthesitis-related arthritis (n=7), oligoarthritis (n= 5). Four patients suffered from bilateral cataract due to corticosteroid intake. Polyarticular RF+ and RF- progressed into an authentic seropositive and seronegative RA in 71.4% and 66.7% respectively. Among oligoarticular subtype, an extension of the disease to a polyarticular FR+ form (n=1) and to a seronegative rheumatoid arthritis (n=1) was noted. Systemic JIA forms remained in remission with an articular involvement. All the patients with ERA developed spondylarthritis. Although forty-two percent of the patients were married, only half of them had children. Ten percent of patients stopped attending school because of disease flares and deformation. A university level was found in 16% of cases. Only Thirty patients had a profession. Of the patients, 74.4% had received disease-modifying anti-rheumatic drugs (DMARDs) and 36.3% of them were still taking a DMARD. Ten patients were on biologics. Severe disability was found in 20% of patients and concerned mainly the hip (57,2%), the wrist (28,5%) and the elbows (14,3%). Prosthetic joint replacement was found in 2% of cases with a revision of the latter in one patient.

Conclusion: Adults with JIA often have significant levels of disability, usually related to severe joint complications. There is a clear requirement for a better transition to adulthood and a socio-professional rehabilitation.

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AB0737

THE NAIL FOLD CAPILLAROSCOPIC FINDINGS OF ADOLESCENTS WITH ANOREXIA NERVOSA AND BULIMIA NERVOSA

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Background: The nail fold video capillaroscopy (NVC) is usually performed on patients with microcirculation problems, such as Raynaud's phenomenon. It is also used to distinguish between primary and secondary Raynaud's Phenomenon and identify the scleroderma pattern.

Objectives: To describe the acute phase nail fold capillaroscopic findings of adolescents with anorexia nervosa (AN) and bulimia nervosa (BN) and to compare these findings with adolescents diagnosed with primary Reynaud's phenomenon (RP).

Methods: We included 17 AN, 2 BN patients and 6 adolescents with primary RP as a control group. The nail fold video capillaroscopy (NVC) data of three study groups were compared. AN and BN patients were classified according to DSM-5. The participants in these two groups were assessed for the presence of Reynaud's phenomenon/acrocyanosis and the weight loss history (amount and duration), daily calorie intake, vital signs, hydration status, amenorrhea presence and time, the presence and frequency of compensatory behaviors, and drug usage were recorded. Adolescents with primary RP were diagnosed according to 'International consensus criteria for the diagnosis of RP. The initial NVC was performed at the acute phase of AN and BN. For AN acute phase is defined as the period where the nutritional rehabilitation has not yet taken place. The NVC analysis was performed with a digital USB microscopy by an expert blinded to the participant's clinical status and diagnosis. Eight fingers were evaluated for each patient and average of all fingers' scores were used as quantitative measures.

Results: Among adolescents with AN, 14 of them had enlarged capillaries (capillary diameter 20-50 µm) and 6 of them had mild tortuosity (<50%) which were considered as minor capillaroscopic changes. 5 patients had at least one giant capillary (>50µm), 3 of them had microhemorrhages, 4 of them had capillary ramifications, and 1 of them had capillary disorganization which were considered as major capillaroscopic changes. Two adolescents had capillary loss (6 capillaries/mm). None of them had active or late phase scleroderma findings. In the primary RP group, there were minor findings as five adolescents had mild capillary dilation (capillary diameter 20-50 µm), and 5 had mild tortuosity (<50%). However, none had scleroderma (early-active-late phase) findings. Microangiopathy assessment scores revealed no difference between the AN patients with and without RP and primary RP patients.(Table 1) A positive correlation was found between capillary ramification scores and initial daily calorie intake (r: -0.47; p=0.04).

Table 1. Measurements of capileroscopy findings according to patient groups

	AN+RP+ n=4	AN+RP- n=13	BN n=2	Primer RP kontrol n=6	p
Microangiopathy score	0.84 (IQR 0.98)	0.92 (IQR 0.96)	0.71	0.65 (IQR0.23)	0.62
• Capillary loss score	0.22 (IQR 0.62)	0.06 (IQR 0.41)	0.15	0.0 (IQR 0.26)	0.58
• Capillary ramification score	0.18 (IQR 0.25)	0.13 (IQR 0.25)	0.09	0.09 (IQR 0.18)	0.88
• Disorganized capillaries score	0.38 (IQR 0.48)	0.56 (IQR 0.68)	0.46	0.43 (0.32)	0.98
Enlarged capillaries score (20-50 µm)	0.56 (IQR 0.78)	0.31 (IQR 0.72)	0.73	0.58 (IQR 0.42)	0.60
Giant capillaries score (>50 µm)	0.06 (IQR 0.22)	0.00 (IQR 0.03)	0.18	0.03 (0.14)	0.14
Microhaemorrhage score	0.00	0.00	0.00	0.01	0.67

Conclusion: Preliminary results of our study suggest that adolescents with AN are at risk for vasculopathy especially during the acute phase of the disease.

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AB0738

JUVENILE IDIOPATHIC ARTHRITIS AND SCHOOLING

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Background: Juvenile idiopathic arthritis (JIA) refers to all chronic inflammatory rheumatism in children without a recognized cause, onset before the age of 16. JIA is associated with significant short- and long-term disability, which influences the education and socio-professional integration of patients who suffers from it.

Objectives: Evaluate the impact of JIA on the education and professional integration of affected patients.

Methods: This is a retrospective, descriptive and cross-sectional study carried out in the rheumatology department.

We included all patient followed in our JIA training.

The following information was collected from a questionnaire survey: Educational attainment, main problems experienced during studies, cause of dropping school, and professional data.

Results: Forty-two patients were included. The average age was 27.15 years old [18 - 61 years old]. Sex-Ratio (M / F) was 0.9. The forms of JIA were dominated by spondyloarthropathy (48.64%) and the seropositive polyarticular form (18.91%). The mean age of onset of JIA was 10.8 years [6 months - 16 years]. The mean duration of JIA progression was 14.4 years [4 - 27 years].

Regarding education, 2.94% were illiterate, 23.52% had a primary level, 55.87% a secondary level and 17.64% a higher level. The majority of patients (85%) experienced several problems during their studies: joint pain and stiffness (73.52%), absenteeism (50%), limitation in activities (26.47%), problem with adaptation and social integration (11.76%) and fatigue (5.88%). Only 2.94% of patients benefited from an individualized reception protocol apart from a sports exemption which represents 38.23%. 73.52% of patients received encouragement to continue their studies by those around them (parents, teachers and attending physicians).

Discontinuation of schooling was observed in 70.58% of patients with 8.82% of patients dropping school before the onset of JIA and 61.76% of patients related to JIA. School studies were still ongoing in 23.52% of patients.

Regarding the professional side, unemployment affects 52.94% of these patients and workers represent 23.52%.

Conclusion: In our series, the level of education of JIA patients does not exceed secondary level in 80% of cases. The implementation of an individualized reception protocol is strongly recommended to facilitate the education of these patients and to fight against the main problems experienced. The professional integration of patients with JIA should also be adopted.

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