a pediatric psychiatrist to confirm psychiatric/emotional diagnosis. Clinical, social and demographic data were collected from medical records. Descriptive statistics with frequencies or measures of central tendency and dispersion, depending on variable characteristics were used. Comparisons and correlations were performed with parametric and non-parametric tests as appropriate.

Results: Forty patients were recruited during study period, aged 18 (IQR 16 - 19) years old, 31 female, and most diagnosed with JIA (22, 55%) and Systemic Lupus Erythematosus (SLE, 7, 17.5%). Time since diagnosis were 5.5 (IQR 0.5 - 13) years and half of the patients presented with an active disease.

After psychiatric evaluations, 24 (60%) patients presented a PD, 7 (17.5%) were identified with MDD, while minor disorders (specific phobia and anxiety) were noticed in 11 (27.5%). Two patients presented alcohol dependence, and 11 (27.5%) were diagnosed with more than one PD.

PD were more frequently in patients with SLE (71%) and in those with active disease regardless of underlying diagnosis (54% vs 45%, $P = .490$). Other significant factors related with more prevalence of PD were female gender (66% vs 44%, $P < .001$), having a couple (90% vs 57%, $P < .001$), have a single parent (83% vs 60%, $P = .005$), and sex activity (71% vs 61%, $P = .002$).

Conclusion: We found a higher prevalence of PD in adolescents during transitional care, especially in those with active disease. It is priority to involve a multidisciplinary team to transition adolescents from pediatric to adulthood care to prevent and detect PD in this population.

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AB0977 ULTRASOUND MEASUREMENT OF JOINT CARTILAGE THICKNESS IN HEALTHY ASIAN SCHOOL-AGED CHILDREN

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Background: Degeneration of the osteocartilaginous structures due to synovial inflammatory process is a feature of juvenile idiopathic arthritis (JIA)¹. While anthropometry difference has been reported between Asian and Caucasian². Asian specific age- and gender-related normal standard reference values should be established before ultrasound (US) measurement of cartilage thickness (Cth) becomes standard procedure in the clinic.

Objectives: The standard cartilage thickness in Asian children population

Methods: A cross-sectional study was performed in 100 healthy Asian children (including 48 girls and 52 boys, age between 5 to 12 years-old). Bilateral knees, ankles, wrists, second metacarpophalangeals (MCPs) and proximal interphalangeals (PIPs) were measured using US. Children's body weight and body height were also recorded for later adjustment.

Results: We observed no difference in the Cth between right and left knees, ankles and wrists but MCPs and PIPs. Cartilage thickness in the large joints such as ankles and knees differed between sexes ($p < 0.001$), and the boys had thicker cartilage than those of the girls. Cartilage thickness decreases with increasing age after weight, height and BMI adjustment. A formula for calculating sex-specific cartilage thickness at different ages in childhood is suggested.

Conclusion: Cartilage thickness measurement with US in small joints may be biased. A standard reference of Cth for Asians in the knee, ankle and wrist joints between age 5- to 12 have been proposed.

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AB0978 NEUROLOGICAL MANIFESTATIONS OF PEDIATRIC SYSTEMIC LUPUS ERYTHEMATOSUS IN EGYPTIAN PATIENTS

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Background: SLE is a complex autoimmune disorder, characterized by multisystem involvement including the nervous system, juvenile onset SLE has more aggressive clinical course in comparison with adult-onset SLE.

Objectives: To study the neuropsychiatric manifestations of SLE in Egyptian children.

Methods: We reviewed the charts of all children and adolescents who were diagnosed with SLE and evidence of neuropsychiatric manifestations was defined by full neuropsychiatric history and examination.

Results: Out of 54 children with SLE, 30 (55.6%) had neuropsychiatric (NP) manifestations, the mean age at onset of the disease was 13.6 years. The mean period between onset of SLE and NP manifestations 15.5 months. NP manifestations was the presenting feature in 3 patients. Headache was the initial symptom of central nervous system (CNS) involvement in 35% of patients seizures was the most frequent CNS finding seen in 7(23.3%) patients, 6 (20%) patients had cognitive impairment, 6(20%) patient had cognitive impairment, 6(20%) patients had CVA, 2(6.7%) had chorea, 2(6.7%) had psychosis, 2(6.7%) had depression, 1 (3.3) had cerebritis, 1(3.3%) had peripheral neuropathy. Lupus anticoagulant was high in patients with chorea, seizures or cerebrovascular accidents (CVA). Electroencephalogram (EEG) was abnormal in 30% of patients presented by seizures and rarely helpful in patients with diffuse NP symptoms. Magnetic resonance imaging (MRI) was abnormal in 13 cases, long term outcome was good, 3 patients had significant persistent CNS deficits, the majority of patients (90%) had excellent recovery from neuropsychiatric SLE.

Conclusion: NPSLE is one of the most common serious complications of pediatric SLE, so early recognition and management are of paramount importance. CNS involvement was observed in 55% of our pediatric patients with SLE, 76% of whom developed symptoms during the first year of onset of the disease Headache and seizures were the most common neurological manifestations of pediatric SLE, followed by CVA and intellectual disability. Psychosis, depression and chorea were less frequent in our study group, while peripheral neuropathy and cerebritis were rare.

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AB0979

CORTICOSTEROID TREATMENT IN PEDIATRIC RHEUMATIC DISEASES AND SUPPRESSION OF THE HYPOTHALAMIC-PITUITARY AXIS

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Background: Corticosteroids are the mainstay in the treatment of several chronic inflammatory diseases. Long-term treatment may lead to suppression of hypothalamic-pituitary-adrenal axis, which in turn can be dangerous in stress situations such as after surgical interventions. Oral replacement therapy may be needed in some cases. Data on pediatric populations are scanty.

Objectives: The aim of our study has been to evaluate hypothalamic-pituitary-adrenal function during corticosteroid tapering by measuring serum cortisol.

Methods: During long term corticosteroid treatment, serum cortisol levels were evaluated when oral prednisone dose was decreased to 7.5 mg/day and also after 4-6 weeks, and if below range ACTH levels were also determined.

All patients aged < 18 years seen in our center during the last 6 months who were on corticosteroid treatment for > 1 month were included. Serum cortisol levels were considered normal if in the range of 5-25 µg/dL in a morning fasting blood drawing, while ACTH levels were considered normal in between 6 and 55 ng/L (with chemiluminescent method). Clinical and demographic data were recorded from clinical charts in a customized database.

Results: We have included in this preliminary study 12 patients (7F, 5M) affected by uveitis (n=4), JIA (n=4), scleroderma (n=3), lupus (n=1). The mean age (at the time of sampling) was 11.5 years, with a median of 10 and a range of 8-17. Prednisone starting dose was 1 mg/kg/day.

Four out of 12 patients had decreased cortisol levels. Characteristics of these four patients (none of whom had additional steroid pulses) are detailed in the table.

Conclusion: One third of our patients had decreased cortisol levels, after three months of prednisone treatment. In one case, who showed persistent low levels, oral supplementation with hydrocortisone 20 mg/day for two months was needed. Our study is ongoing and results could help in identifying patients at risk for adrenal crisis.

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AB0980

EFFICACY OF ETANERCEPT TREATMENT FOR CHILDREN WITH KAWASAKI DISEASE INTRACTABLE TO INTRAVENOUS IMMUNOGLOBULIN THERAPY IN RUSSIAN CHILDREN

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Background: Kawasaki disease (KD) is recognized in developed countries as a fundamental reason of acquired heart diseases in children nowadays. The main treatment is infusion of intravenous immunoglobulin (IVIG) at a dose of 2 g/kg. However for about 10-30% of children is reported the development of resistance to standard therapy: continuance of fever ($\geq 38,0^{\circ}\text{C}$) or recurrency of fever after 36 hours afebrile period ($T < 37,5^{\circ}\text{C}$), but not later than on the 7th day after completion of the IVIG infusion at a dose of 2 g/kg. Until now there are no unified recommendations for treatment of such patients. As alternative therapy researchers empirically apply second infusion of IVIG (77%), high doses of glucocorticoids (18%), blockers of tumor necrosis factor α (3%) and interleukin-1, cyclosporine and other cytostatic drugs.

Objectives: Efficacy evaluation of therapy by inhibitor of TNF-alpha (Etanercept) in treatment of KD immunoglobulin-resistant forms according to the data from Morozovskaya Children's City Clinical Hospital, Moscow.

Methods: There were examined 152 patients (boys:girls – 2:1, median age Me = 21 months [10;36]) with KD hospitalized in Morozovskaya Children's City Clinical Hospital in 2014-2018. The frequency of complete form of KD was 80,6%. All children had a standard therapy – IVIG. Efficacy evaluation was based on normalization of body temperature, decrease of neutrocytosis, decrease of C-reactive protein (CRP) level. In case of ineffectiveness of therapy the second infusion of IVIG, pulse-therapy and inhibitor of TNF-alpha (Etanercept) were used.

Results: The resistance to standard IVIG therapy was revealed in 16 children (10,5%), mostly in boys (4,3:1) at the age of Me = 21,5 months [9,5; 34]. Complete form of KD was diagnosed in 11 patients (68,8%), incomplete form – in 5 children (31,2%). Cardiovascular lesions were noted in 14 children (87,5%): pericarditis – in 2 (12,2%), coronary arteries (CA) lesions – in 12 (75%), with formation of aneurysms in 8 (50%), including the giant ones in 3 children (18,8%); peripheral arteries damages were noted in 2 children (12,5%), thrombosis and thromboembolism – in 4 children (25%).

To all of children was made the second IVIG infusion, 13 of those children (81,2%) had a positive effect: 11 children with complete form of KD, 2 children with incomplete form of KD. For 3 children (18,7%) with incomplete form of KD and significant cardiovascular changes (pericarditis, giant aneurysm of coronary and peripheral arteries, thrombosis and thromboembolism) it was needed an additional therapy. As a second-line therapy the methylprednisolone pulse-therapy was used in 2 children (12,5%) at a dose of 10 mg/kg, without sufficient effect. For these three patients (3) as a third-line therapy was applied Etanercept at a dose of 0,8 mg/kg/a week subcutaneously. In all children normalization of body temperature, decrease of leukocytosis by factor of 1,5-3 and decrease of CRP by factor of 10-15 occurred after three injections of Etanercept. However, for 1 child it was needed the additional fourth injection of Etanercept because of repeated fever, increased laboratory parameters, development of thrombosis of the left coronary artery after 2 weeks upon discharge.

Conclusion: The frequency of immunoglobulin-resistant forms was 10, 5%. The first-line therapy of resistance (second IVIG-infusion) was efficient in 13 children (81,2%). Methylprednisolone pulse therapy was ineffective. The use of 3 subcutaneous injections of Etanercept at a dose of 0,8 mg/kg/a week resulted in decrease of intensity of inflammatory changes and in fever relief, but it did not prevent the development of relapse and thrombosis of coronary arteries.

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Patient	Gender	Age	Disease	PDN initial dose [mg/Kg/die]	PDN duration of therapy up to 7.5mg/day	Cortisolemia (1) [mcg/dl]	Cortisolemia (2) [mcg/dl]	ACTH [ng/L]
1	M	17	Uveitis	0.9	3 months	4,37	N/A	N/A
2	F	13	Scleroderma	1	3 months	2,87	5,22	15,90
3	F	8	JIA	1.4	4 months	0,20	2,68	7,98
4	M	10	Uveitis	1.3	3 months	4,3	N/A	25,01