Lipoprotein lipase is a key enzyme in lipid metabolism, ensuring the hydrolysis of plasma triglycerides found in chylomicrons and very low density lipoproteins. An increase in the catalytic activity of lipoprotein lipase leads to a decrease in the level of TG and an increase in the level of HDL in the blood. According to the results of the survey in children with JIA, the concentration of lipoprotein lipase was 13.9 [7.1; 25.3] µg/l, with obesity 27.5 [9.9; 47.8] µg/l. A direct relationship was established between its content in blood serum and the concentration of LDL ($r_s=0.37$; $p<0.05$) and the inverse with the level of LDL ($r_s = -0.4$; $p<0.05$). There was a significant difference ($p<0.05$) by gender: the level of lipoprotein lipase in the blood serum in girls was 25.8 [16.7 - 54.4] µg/l, in boys - 15.6 [7.8 - 29.0] µg/l. A correlation was also established between the level of lipoprotein lipase and body mass index ($r_s = 0.35$; $p<0.05$).

According to the results of the study, a significant ($p<0.05$) increase in the level of primary (DK233) and secondary (DK278 and MDA) LPO products in the blood serum of children with JIA was found in comparison with the control group. During the correlation analysis, a positive correlation was established between the levels of DK233, DK278 in serum and ESR ($r_s = 0.587$, $p<0.01$). The results obtained indicate the intensification of lipid peroxidation processes. A significant ($p<0.05-0.01$) decrease in the content of water-soluble (ACW) and fat-soluble (ACL) antioxidant capacity of substances in the blood serum of children with JIA was found when compared with similar indicators in the control group. During the correlation analysis, a negative correlation was established between the level of CRP and the content of ACL in serum ($r_s = -0.346$, $p<0.05$), between the content of ACW and CRP in serum ($r_s = -0.54$, $p<0.01$).

Conclusion: It can be concluded that the activation of lipid peroxidation and the failure of the antioxidant system play a significant role in the development and progression of JIA in the examined children, as well as in the formation of atherogenic disorders by the lipid peroxidation mechanism. In addition, children with JIA have abnormalities in the lipid spectrum, acquiring an atherogenic orientation, which, together with hemostasiological changes, can be regarded as a risk factor for atherothrombosis.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2019-eular.7633

SAT0492 GASTROINTESTINAL MANIFESTATIONS IN CHILDHOOD BEHÇET'S DISEASE

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Background: Behçet's disease (BD) is an idiopathic, chronic, inflammatory systemic vasculitis characterized by recurrent oral and genital aphthous ulcers, skin lesions, and ocular involvement. It can also affect multiple visceral organ and system such as heart, lung, blood vessels, gastrointestinal (GI) system, and central nervous system (1). The etiology of the disease is still unknown. New diagnostic criteria for pediatric Behçet's patients have been established in 2015, and its largely based on clinical findings (2). Although the GI manifestations are not take part in to the diagnostic criteria, it can be emerge in great deal of patients and associated with significant morbidity and mortality. The most common GI symptoms in BD are abdominal pain, nausea, diarrhea and GI bleeding in, respectively. Also, the most common reported site of intestinal involvement was ileocecal. The literature data related to GI involvement of BD are frequently concern adult patients and pediatric studies are limited.

Objectives: We analyzed the GI manifestations and its endoscopic findings in children diagnosed with BD.

Methods: We retrospectively reviewed the clinical records of 64 patients who fulfilled the international pediatric classification criteria for BD from December 2015 to December 2018. Endoscopic examination results of 13 patients were also collected and analyzed.

Results: Of the 64 children with BD, 37 were male and 27 were female, and sex ratio (male/female) was 1.37/1. The mean age of our patients was 9.49 ± 4.10 and 11.52 ± 3.50 ; at onset of symptoms and at the time of diagnosis, respectively. Assessment of our 64 patients revealed that the prevalence of GI symptoms is 60% (39/64). The most frequent GI symptoms were abdominal pain in 56% (36/64), chronic diarrhea in 18% (12/64), nausea/vomiting in 11% (7/64), chronic constipation in 12% (8/64), and regurgitation or heartburn in 7% (5/64). Upper GI endoscopy was performed in 7 patients and colonoscopy in 6. All of the patients who underwent the endoscopy or colonoscopy, had findings support the GI

inflammation. The endoscopic findings shown in the patients are; gastric inflammation in 100% (7/7), oesophageal inflammation in 57% (4/7), duodenal inflammation in 42% (3/7), colonic erythema and inflammation in 83% (5/6), polyps in 50% (3/6), ulceration in 66% (4/6), and hemorrhoids in 16% (1/6). Upper GI ulceration was not observed. Pathology specimens were taken in 7 upper endoscopies and 6 colonoscopies within our patients. The findings of pathology specimens were vascular congestion and inflammation in 100% (7/7) of upper GI biopsies and 83% (5/6) of colonic biopsies, cryptitis in 66% (4/6) of colonic biopsies. Acute colitis in pathology specimens was shown in 83% (5/6) of the patients. Three of the patients with colitis had punch ulcers, and these patients were evaluated as BD-associated colitis. The other two patients were diagnosed and treated as Crohn's colitis accompanying BD.

Conclusion: The GI system is one of the most frequently affected organ by the BD. It may cause the inflammation and ulceration in the GI tract. Inflammatory bowel diseases can also cause GI inflammation similar to BD. In patients with symptoms of GI inflammation, upper and lower GI endoscopic examination and pathological analysis may be helpful in determine the underlying etiology.

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Acknowledgement: We are grateful to all participating children and their families.

Disclosure of Interest: None Declared

DOI: 10.1136/annrheumdis-2019-eular.4053

SAT0493 THE CHALLENGE OF TREATING PULMONARY VASCULITIS IN BEHÇET'S DISEASE: TWO PEDIATRIC CASES

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Background: Behçet's Disease (BD) is a multisystemic autoinflammatory disease and the most severe complication of BD is pulmonary artery involvement (PAI). Data regarding treatment and outcomes of pediatric patients with PAI is very limited.

Objectives: Herein, we report two pediatric patients with BD presenting with PAI and treated successfully with aggressive immunosuppressive treatment.

Methods: Demographic data, clinical manifestations, laboratory and radiological findings, and treatments of patients were documented from patient charts retrospectively.

Results:

Case 1: A 15-year-old boy was admitted with abdominal pain and fever. An abdominal Doppler ultrasonography (USG) showed stenosis of vena cava inferior (VCI) with a thrombus. Transthoracic echocardiography (TTE) detected that the thrombus extended from VCI to the right atrium. When he started to have hemoptysis, he was referred to our hospital. TTE showed a mass in RV. The computed chest and abdominal tomography angiography (CTA) showed bilateral aneurysmatic dilatation with thrombi in the pulmonary arteries and thrombosis in vena hepatica. The pathergy test was negative and the HLA B5 was negative. According to the ICBD, the patient had been diagnosed as BD due to genital ulcers and vascular involvement. He was given pulse methylprednisolone (MP) 500 mg 3 days along and followed by oral prednisolone 1 mg/kg/day, intravenous cyclophosphamide at a dose of 15 mg/kg every 3 weeks for a total of 6 cycles, and Interferon- α 2a (IFN- α 2a) 3 times a week. Within one month, hemoptysis and fever disappeared, and CRP values normalized. After a three-month treatment, TTE and CTA revealed that thrombi shrank significantly. The dosage of prednisolone was tapered gradually and stopped 2 years later. Immunosuppressive treatment was continued with adalimumab. The patient has been followed in remission for nearly 6 years.

Case 2: A fifteen-year-old boy was referred to our hospital for the evaluation of fever for over 4 months and a thrombus in his right ventricle. He had a medical history with cough, fever, intermittent hemoptysis and weight loss for the past 3 months. Physical examination revealed acne-like rashes over face and back, oral ulcers. A CTA confirmed the