

Serum calprotectin in Behçet's disease



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Background: Behçet's disease (BD) is a chronic systemic vasculitis characterized by neutrophil activation and recurrent oral aphthous ulcers, genital ulcers, uveitis, and other clinical symptoms. Calprotectin (CLP) is a marker of neutrophil activation and NETosis. Currently, there is insufficient data on the association of CLP with clinical and laboratory manifestations of BD.

Aim: To study the relationship between high levels of CLP and manifestations of BD.

Material and methods.

This study included 90 BD patients and 30 healthy controls.

The median age of patients was 32 years [26; 37], the median disease duration was 11 years [5; 15].

□ The activity of BD was determined using the Behçet's disease current activity Form (BDCAF). High disease activity was defined as BDCAF score ≥ 4 .

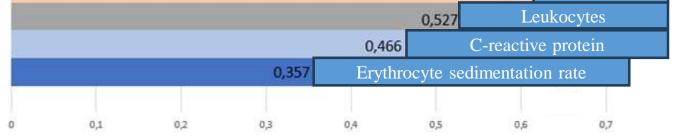
□CLP was measured in serum by enzyme-linked immunosorbent assay according to the manufacturer's protocol (Bulhmann Laboratories AG, Switzerland). The upper limit of the CLP was determined by the 95th percentile of healthy control values.

Results.

Serum CLP levels were higher in patients with BD compared to healthy controls (4.08 [2.81; 7.25] μ g/mL vs. 2.86 [2.15; 3.92] μ g/mL, p=0.003). 23 (26%) of 90 patients with BD had elevated serum CLP levels. High CLP levels were associated with pustulosis (OR=3.41; 95% CI: 1.05-11.13, p=0.044), arthritis (OR=13.89; 95% CI: 1.47-131.82, p=0.014), uveitis (OR=4.74; 95% CI: 1.55-14.48, p=0.011), and high disease activity (OR=3.195; 95% CI: 1.149-8.887, p=0.029). CLP correlated with leukocyte count (r_s =0.527, p<0.0001), neutrophil count (r_s =0.656, p<0.0001), NLR (r_s =0.628, p<0.0001), SII (r_s =0.617, p<0.0001), erythrocyte sedimentation rate (r_s =0.357, p=0.001) and C-reactive protein (r_s =0.466, p<0.0001) in patients with BD (Fig.1).



Correlation coefficient (r _s)		- Í	
	0,65	6 Neutrophi	ils
	0,628	NLR	
	0,617	SII	



Conclusion: High levels of CLP were associated with the presence of pustulosis, arthritis, uveitis, and high overall clinical and laboratory activity of BD.

Conflict of interest: the Authors declare that there is no conflict of interest