involvement regardless of major organ involvement type. These results suggest that increased PA wall thickness in BD may be the predictor of the major organ involvement during follow-up.

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POS1370 INCREASED INFERIOR VENA CAVA WALL THICKNESS AS A SIGN OF VENOUS INFLAMMATION IN BEHÇET'S DISEASE

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Background: Vascular involvement of Behçet's disease (BD) involves both arterial and venous vessels of all sizes [1]. Femoral (superficial, deep, and common) and popliteal veins are the most frequently affected veins. We have previously shown that femoral wall thickness is increased in BD patients and can be used as a diagnostic test [2].
However, many other sites including vena cava inferior/superior and pulmonary arteries may also be involved [3]. Despite the dominance of venous vessel involvement, there is limited data assessing the large veins in BD.
Objectives: In this study, we aimed to assess inferior vena cava wall thickness (IVC) by transthoracic echocardiography (TTE) in BD compared with healthy controls.
Methods: Patients with BD (n=70) and age and sex-matched healthy controls (n=51) were included in this study. Assessment of inferior vena cava (IVC) wall thickness was performed by an experienced cardiologist blinded to cases. Measurement of IVC wall thickness was made at end-expiration and approximately 0.5 to 2.0 cm proximal to the ostium of the right atrium as demonstrated in Figure 1.

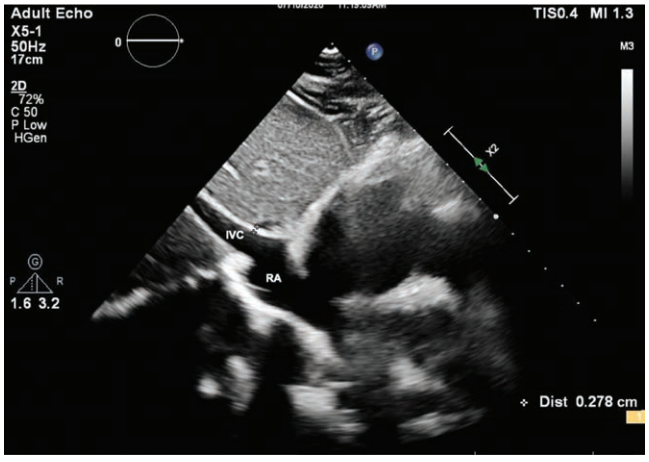

Figure 1. Measurement of inferior vena cava wall thickness by transthoracic echocardiography

Results: IVC wall thickness of patients with BD (0.29 mm (SD: 0.03) was significantly higher than healthy controls (0.26 mm (SD: 0.03) (p<001). Although IVC wall thickness was higher in patients with BD with vascular involvement (0.30 mm (SD:0.04) and history of pulmonary embolism (0.30 mm (SD:0.04)), the difference did not reach statistical significance. There was no difference between IVC wall thicknesses in patients who used immunosuppressive and anti-TNF treatments due to major organ involvement, compared to those who did not. Similarly, no difference is observed between IVC thicknesses among Behçet's patients according to age, gender, and activity status at the last visit. Although no correlation was found between IVC wall thicknesses, disease duration, and BDCAF scores at the last visit in the BD group, there was a low-grade correlation between age and IVC wall thickness (r=0.31, p=0.09)
Conclusion: Increased IVC wall thickness shows vasculitic involvement of large venous structures in BD and can be easily measured by TTE which is an easily accessible, noninvasive modality without radiation. The role of IVC wall thickness assessment for the diagnosis or management of BD requires further studies.

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POS1371 HYPOMETHYLATION OF CIRCULATING IMMUNE CELLS IN PATIENTS WITH GRAVES' ORBITOPATHY – A PRELIMINARY STUDY

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Background: Graves' orbitopathy (GO) is an eye disease occurring in patients with autoimmune thyroid disorders (AITD), most commonly Graves´ disease. It is characterized by inflammation affecting soft tissues of the orbit. A recent study demonstrated an association between fibroblast hypomethylation and disease activity in GO (Virakul *et al*., Front Endocrinol, 2021). Because procurement of fibroblast from GO patients require an invasive sampling, we wondered whether analysis of global DNA methylation in circulating immune cells obtained from peripheral blood could contribute to early detection of GO from patients with AITD.
Objectives: To compare global DNA methylation pattern in circulating immune cells obtained from AITD patients with GO and without GO history and healthy controls.
Methods: Global DNA methylation was quantified in circulating immune cell populations by flow cytometry using 5-methylcytosine antibody in patients with GO (n=10), AITD without GO history (n=9) and healthy controls (n=8). Immune populations ($CD4^+$ and $CD8^+$ T cells, B cells, monocytes and $CD56^{dim/bright}$ NK cells) and their activation status were identified using CD3/4/8/14/16/19/25/45/56/69 antibodies.
Results: In patients with GO, global DNA methylation was reduced by ~50% in the activated ($CD25^+$) $CD8^+$ T cells and by ~35% in the whole $CD8^+$ T cell population compared to patients with AITD (p=0.006). Moreover, percentage of $CD8^+$ T cells, but not activated subpopulation, was higher in GO when compared to AITD (p=0.04). Hypomethylation by ~20% was detected in monocytes as well as in $CD56^{dim}$ NK cells and their activated ($CD69^+$) subpopulation when GO was compared with AITD (p≤0.02). Of these cell populations, percentage of monocytes was also higher in GO when compared to AITD (p=0.04). Global methylation in B cells, $CD4^+$ T cells and $CD56^{bright}$ NK cells did not differ between patients with GO and patients with AITD (p>0.05). Of these populations, higher percentage of B cells was detected in GO when compared to AITD group (p=0.02). Analysis of larger patient cohorts is in progress with particular emphasis on the relationship of methylation patterns to GO disease activity.
Conclusion: This is the first study identifying the different global methylation profile of circulating immune cells in patients with GO characterized by DNA hypomethylation in $CD8^+$ T cells, $CD56^{dim}$ NK cells and monocytes compared to patients with AITD. Our study nominates hypomethylation as a non-invasive biomarker of GO and should be validated in a larger cohort of patients.
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