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O087 Potential diagnostic biomarkers for congenital vascular malformations

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Introduction: To identify potential diagnostic serum biomarkers, particularly those pertaining to the processes of inflammation and angiogenesis in patients with congenital vascular malformations (CVM).

Methods: Isolated sera from the peripheral bloods of consented healthy controls (n = 10) and patients diagnosed as having either low-flow (LF) (n = 10) or high-flow (HF) (n = 10) CVMs. Various mediators of inflammation and angiogenesis were analysed in the sera using the Inflammation 20-Plex and Angiogenesis 18-Plex Human ProcartaPlex™ Panels. Analysis was conducted via Kruskall-Wallis test and correlated with lesion volumes and visual analogue scores for pain using the Spearman rank correlation test.

Results: Compared to healthy controls, the inflammatory mediators E-selectin, IFNa, IFNg, IL1b, IL4, IL12, IL17, MIP1a, MIP1b and TNFa were elevated in the sera of LF CVM patients, whereas only MIP1a was raised in the sera of HF CVM patients. None of the angiogenic mediators were altered in the sera of patients with LF or HF CVMs. Serum IFNα, IFNγ, IL4, IL12, TNFa, VEGFA, VEGFD and syndecan
correlated positively with pain scores in patients with LF CVMs, whereas only IP10 did in patients with HF CVMs. Serum Ang1 and leptin correlated negatively with lesion volumes in patients with LF or HF CVMs, respectively.

**Conclusion:** Serum inflammatory mediators could be used to distinguish LF from HF CVMs and their expression seemed to be associated with pain severity in patients with LF CVMs. The angiogenic mediators Ang1 and leptin were associated with lesion volumes in patients with LF or HF CVMs, respectively.

**Take-home message:** Serum inflammatory mediators could be used to distinguish LF from HF CVMs and their expression seemed to be associated with pain severity in patients with LF CVMs. The angiogenic mediators Ang1 and leptin were associated with lesion volumes in patients with LF or HF CVMs, respectively.

**Abdominal Malignancy**