FP088 **CLINICAL SIGNIFICANCE OF VON WILLEBRAND FACTOR AND MONOCYTE CHEMOATTRACTANT PROTEIN 1 IN CHILDREN WITH HENOCH-SCHÖNLEIN PURPURA**

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INTRODUCTION: Henoch-Schönlein purpura (HSP) is the most common small vessel vasculitis in childhood. Usually, the first laboratory signs of renal syndrome development in the case of HSP found at 3-4 weeks from the onset of the disease. Henoch-Schonlein purpura nephritis (HSPN) is identified increasingly as the main cause of chronic renal failure among children, 5-15% of children with HSPN develop chronic renal failure. The activity of vWF in the bloodstream contributes to the increase of aggregative activity of the platelets, which initiates mesangial proliferation and development of a sclerotic process in the glomerular apparatus. Vascular endothelial cells express MCP-1, which takes part in the processes of interstitial fibrosis and glomerulosclerosis and raises a research interest whether. The aim of the study was to assess the levels of monocyte chemoattractant protein 1 (MCP-1) and von Willebrand factor (vWF) in in children with Henoch-Schonlein purpura with or without renal syndrome.

METHODS: 60 children aged 1 to17 years old (35 males, 25 females) with HSP were examined. The patients divided into the 1st group (n=39) and 2nd group (n=21) according to whether or not combined with renal syndrome. The control group included 17 healthy children. Serum MCP-1 was measured at enrollment using a sensitive ELISA assay. The levels vWF were determined in plasma by ahrehometric method. The data were analysed with StatSoft STATISTICA Version 8 (Tulsa, OK). Statistical significance was derived using non-parametric tests (Mann-Whitney test and Kruskal-Wallis test). Statistical significance is set at $p < 0.05$.

RESULTS: The results of Kruskal-Wallis test for all parameters are significant, namely: vWF – H=29,5, p=0,0000, MCP-1 – H=61,7, p=0,0000. As follows, statistical characteristics of indicators of different groups are statistically different, and the levels of parameters which were investigated, depend on combined HSP with renal syndrome or not. Patients in all groups had significantly higher serum MCP-1 levels when compared to control group ($p<0.05$). However, MCP-1 in patients showed increasing trend that became statistically significant in 2nd group consisting of patients with HSP without renal function impairment ($p<0.05$). Similar results were obtained when studying the level of von Willebrand factor.

CONCLUSIONS: Levels of MCP-1 and vWF in children depend on combined HSP with renal syndrome or not. High levels of MCP-1 and vWF in children with HSP combined with renal syndrome suggest of probably development of Henoch-Schonlein purpura nephritis with possible further development of renal failure.