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## Highly sensitive C-reactive protein—an independent determinant of risk of formation of essential arterial hypertension at teenage children

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Existence of signs of chronic inflammation at which increase in pro-inflammatory cytokine and as a result-growth of concentration of the C-reactive protein (CRP) is of the characteristic of the arterial hypertension (AH). CRP and arterial blood pressure are independent determinants of cardiovascular risk. 78 school students at the age of 14-16 years are investigated (middle age  $14.7 \pm 0.2$ ). From them 20 children with normal arterial blood pressure (NBP-control group), with high normal (HNBP) – 20 children (group of comparison), with the labile arterial hypertension (LAH) – 20 and with the stable arterial hypertension (SAH) – 18 school students (the main groups). Values 0-3.0mg/L are taken for the reference CRP. The highest CRP level at children from stable AH ( $1.38 \pm 0.4$ mg/L) with a reliable difference in comparison with control is established ( $0.39 \pm 0.1$ mg/L,  $p < 0.05$ ). Increased values of level are noted also at children with LAH ( $0.9 \pm 0.2$ mg/L,  $p < 0.05$ ) and HNBP ( $0.78 \pm 0.11$ mg/L,  $p < 0.05$ ) in relation to parameters of children with NBP. For group of children with HNBP the CRP level  $> 1.19$ mg/L had moderated (% Se=78.6) sensitivity and high specificity (% Sp=86.2). At children with AH this diagnostic test had higher sensitivity (%Se=87.5), and the specificity was identical (%Sp=86.2). Increase in indicators AH is associated with increase in the CRP level. Determination of the CRP level at children with AH has high diagnostic efficiency.