Inflammation at the peripheral and coronary atherosclerosis: Is it low grade or acute

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Heterogeneity of initiation of the system inflammatory answer at an atherosclerosis causes necessity of studying factors of an inflammation and its correlation with traditional metabolic disorders at an atherosclerosis of various localizations.

Materials and methods: Proteins of acute phase of an inflammation – CRP, fibrinogen, general blood count and markers of oxidizing stress – Malondialdehyde (MDA) and katalase activity are analyzed at 30 patients with a Peripheral (in iliac-femoral arterial pool) Atherosclerosis (PA) and at 43 patients with Coronary Atherosclerosis (CA). CRP and routine biochemical tests (lipidomic panel, total protein, albumin, uric acid) are made in automatic biochemical analyzer “VITROS-350” (Germany).

Results: It is established, that all patients have high level of CRP, MDA and uric acid (more, then 2 times concerning the control). At PA patients high CRP level was accompanied with high number of WBC (r=62, p > 0, 05), with young forms (6, 9± 0, 4%), increasing of fibrinogen on 16%, decreasing of albumin on 25% concerning the control. At CA patients CRP increasing associated with degree of metabolic disorders: CRP/glucose (r=0,9, p > 0,05), CRP/Triglycerides (r=0,8, p > 0,05), and strong oxidative stress (CRP/MDA r=0,6 ). There was found correlation between CRP and body mass index, CRP and systolic blood pressure (SBP) at CA patients. WBC and young forms number were comparable to the control.

Conclusion: This data suggest that the inflammation at PA is acute, due to local inflammatory reaction of peripheral tissues after chronic ischemia. At CA inflammation is low grade, but closely connected with metabolic disorders.

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Congenital heart disease at the central hospital and EDO state hospitals management board

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Background: The objective of this study is to determine the reports on childhood Congenital Heart Disease (CHD) in Nigeria. The advent of widespread use of echocardiography enables a more accurate and complete identification of CHD in children. Using echocardiography to determine the prevalence and pattern of CHD in the Central Hospital and Edo State Hospitals Management Board, Edo State, at this time, would be informative.

Method: Patients presenting with CHD to the pediatric health facilities of Central Hospital between May 2005–May 2015 were prospectively enrolled in the study. They were evaluated with chest radiographs, electrocardiograms and echocardiograms.

Result: Forty seven of the 10,539(4.6/1000) children who presented to the hospital during the period under review had CHD. There was no significant gender difference. The mean age at presentation was 2.6 ± 3.5 years. Most of the patients were aged one year of age and below. Isolated Ventricular Septal Defect (VSD) in 27 (55.1 percent) was the most frequent defect, followed by tetralogy of Fallot in 14 (28.6 percent); the other anomalies were Atrial Septal Defect (ASD) and VSD in four (8.1 percent), patent ductus arteriosus and VSD in two (4.1 percent), and isolated ASD in two others. There were more patients from the low and middle socioeconomic classes than those from the high socioeconomic class (fisher's exact test, P=0.66).

Conclusion: The health seeking behaviors of the communities, which entails visiting trade-medical practitioners and churches rather than the hospital, may have accounted for the low prevalence of CHD found. The use of echocardiograms in the nurseries and routine screening of patients from CHD is advocated to allow for early detection and intervention Health education and public enlightenment would also improve the health seeking attitude in the study locale.