Abstract: P1736

Relationship between aortic calcifications and coronary stenosis

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Background: Aortic sclerosis is an active phenomenon, significantly associated with vascular and coronary atherosclerosis and shares the cardiovascular risk factors.

Purpose: Correlation between the presence of aortic button calcifications on chest X-ray, Calcifications of the ring and aortic sigmoids on transesophageal echocardiography (TOE) and angiographic coronary stenosis.

Methods: Prospective Study. 150 patients (male-female sex ratio: 0.89, mean age 53 ± 2 years) were randomly recruited with the only requirement the need for a coronary assessment. The maximum delay between chest x-ray, TOE and coronarography was 1 month.

Results: Chest aortic button calcifications were found in 44.66%, calcifications of the ring and aortic sigmoids at ETO in 44%. 80 patients had coronary artery stenosis. Among them: "single-vessel" 25%, 35% "two-vessel" and 40% "Triple vessel". There is a significant relationship between the presence of Chest aortic button calcifications coronary stenosis with OR = 7.85 (CI= [3.51 - 17.85]). And a significant relationship between the presence of calcifications of the ring and aortic sigmoids and the existence of coronary stenosis with OR = 7.85 (CI: [3.70 - 16.50]).

In multiple linear regression analysis, diabetes, age and obesity are important risk factors that influence the presence of aortic calcifications. Diabetes, hypercholesterolemia, heredity, and smoking are significant risk factors that influence the presence of coronary stenosis. And two independent predictive risk factors for coronary stenosis are identified: aortic calcifications and hypercholesterolemia. The presence of aortic calcifications is the most significant predictor with OR = 102.040 (CI: [9.764 - 1066.429]).

Conclusion: The discovery of aortic calcifications on chest x-ray or echocardiography in a relatively young subject should therefore be an incentive to search for other potentially threatening arterial diseases, such as coronary artery disease.