

Correlation between low levels of Lipoxin A4 and Index Valve Area in sclerotic men with obesity

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Abstract

Calcific Aortic Valve Disease (CAVD) is an active inflammatory disorder where the echocardiographic parameters such as the Index Aortic Valve Area (IAVA) and Peak Aortic Jet Velocity (Vmax) are mainly used to discriminate the sclerotic of the stenotic phase. A compromise of the aortic valvular area, affects the hemodynamic severity leading to heart failure. Inflammation resolution, orchestrated by specialized pro-resolving lipid mediators (SPMs), including the lipoxin A4 (LXA4) is critical to avoid the progression to valve stenosis. Actually is known that LXA4 concentrations are induced by aspirin-triggered lipoxins (ATLs).

We evaluate serum LXA4 concentrations in obese patients in different stages of CAVD and its correlation and association with echocardiographic parameters were performed.

Serum levels of LXA4 were determined in 31 sclerotic patients with obesity and 68 without obesity. Data analysis with Spearman correlation and multivariate ANOVA test were used. $p < 0.05$ were considered as statistical significance.

LXA4 were decreased in obese sclerosis patients compared with those without obesity $p = 0.001$, and a negative correlation with Vmax was found $p = 0.03$. Lower levels of LXA4 in men correlated positively with IAVA $p = 0.05$. Multivariate analysis showed an association between LXA4 and 30% of IAVA variability ($p = 0.05$).

LXA4 low levels in obese sclerotic men, could suggest an elevated risk for progression to valve stenosis. The identification of concentration of

LXA4 could be a therapeutic target, during the sclerotic phase of CAVD. Possibly, increasing the levels of LXA4 with ATLs could prevent progression to stenosis, through optimal resolution of inflammation.



Biography:

Rashidi Springall has completed his PhD in Immunology from Universidad National Autonomy de Mexico. She is member of the National Investigation System and Medical Sciences Researcher in The National Institute of Cardiology. Dedicated in experimental and cellular reserch. She has published more than 20 papers in reputed journals.

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