Comparison Between Non-Invasive and Invasive Assessment of Aortic Valve Stenosis Severity in Patients with Classical and Paradoxical Lflg-As.

Mohamed Arab

OBJECTIVE:

The present study compares the echocardiographic criteria for the grading of aortic valve stenosis with the invasive criteria in patients with classical LFLG-AS and in patients with paradoxical LFLG-AS.

METHODS AND RESULTS:

Current guidelines/recommendations define severe stenosis as an aortic valve area (AVA) < 1 cm2 (or ,0.6 cm2 adjusted for body surface area), mean pressure gradient > 40 mmHg, or peak flow velocity (Vmax) > 4 m/s.

We compared the echocardiographic parameters and invasive cardiac catheterization parameters for the grading of aortic valve stenosis in 49 patients with normal left ventricular (LV) systolic function (EF > 50 %) which is called group P (paradoxical LFLG-AS) and in 43 patients with impaired left ventricular systolic function (EF < 50 %) which is called group C (classical LFLG- AS).

We found that nonsignificant difference among both groups regarding to Demographic data and risk factors. No significant difference of AVA were found in all patients by echo or invasive catheterization, while MPG by invasive cardiac catheterization was significantly higher than that by echocardiography.

In group C (classical LFLG-AS) there was no significant difference between AVA by echocardiography or invasive catheterization, but there was a significant difference between MPG by echocardiography and invasive catheterization.

In group P we found that MPG by catheterization was significantly higher than that by echocardiography , and AVA was significantly higher by echocardiography than that by catheterization .In all patients there was no significant correlation between COP driven by invasive cardiac catheterization and EF driven by echocardiography . MPG by catheterization was significantly higher in group P, other catheterization data (no difference). No significant difference among both groups regarding Echocardiographic parameters and estimated glomular filtration rate (e GFR), The presence of AF was significantly higher in group c

CONCLUSION:

In patients with paradoxical LFLG-AS (group P), we found that MPG by invasive cardiac catheterization was significantly higher than that by echocardiography and AVA by invasive catheterization was significantly lower than that by echocardiography.

In patients with classical LFLG-AS (group C), we found that MPG by invasive catheterization was significantly higher than that by echocardiography. In all patients we found that no significant difference between AVA by echocardiography or invasive catheterization. Also there was no significant correlation between COP driven by invasive catheterization and EF driven by echocardiography in all patients . AF was significantly higher in patients with classical LFLG-AS.