849 Detection of left coronary artery stenoses using transesophageal Doppler assessment of coronary flow reserve in the coronary sinus.
A. Vrublevsky, A. Boshcherko, R. Karpov. Cardiology Research Institute, Department of Coronary Artery Disease, Tomsk, Russian Federation

The aim of our study was the detection of hemodynamically significant stenoses in the territory of the left coronary artery (LCA) using transesophageal Doppler assessment of coronary flow reserve (CFR) in the coronary sinus (CS).

Methods: We studied 60 CAD pts (men, mean age 51±8 years): 36 - with isolated left anterior descending artery (LAD) or left circumflex artery (Cx) stenosis >50%; 24 - with both LAD and Cx stenoses >50%. The control group consisted of 31 healthy volunteers (men, mean age 34±5 years). Transesophageal Doppler assessment of coronary blood flow in the CS was performed at baseline and after intravenous diprydamolide (0.56 mg/kg for 4 minutes) using ultrasound diagnostic systems HDI 5000 SonocT and Ultrasound 9 HDI CV (Philips-ATL). CFR in the CS was calculated in two ways: 1) as ratio of hyperemic to baseline peak antegrade flow velocity (CFR by Vp); 2) as ratio of hyperemic to baseline volume blood flow velocity (CFR by VBF). The level of the CBF <2 in both ways of calculation was diagnosed as reduced.

Results: CAD pts compared to healthy volunteers had significantly lower CFR in the CS both by Vp (1.51±0.45 and 2.25±1.24; p<0.001) and VBF (2.57±0.79 and 5.43±2.83; p<0.001). Sensitivity and specificity of CFR <2 in the CS as a predictor of hemodynamically significant stenoses of the LCA were for Vp 89% and 76%, and for VBF - 49% and 97%, respectively. CFR <2 in the CS by Vp was registered in 96% of CAD pts with two-vessel lesion and in 81% of CAD pts with single-vessel lesion, while CFR <2 in the CS by VBF was revealed in 79% of CAD pts with two-vessel lesion and only in 25% of CAD pts with single-vessel lesion. Sensitivity and specificity of CFR <2 in the CS by VBF in the diagnostics of hemodynamically significant two-vessel lesion of the LCA were 79% and 87%.

Conclusion: Thus, the reduced CFR in the CS is a sensitive and specific predictor of LCA stenoses. Decrease of CFR <2 in the CS both by Vp and VBF is a predictor of hemodynamically significant two-vessel lesion of the LCA, while a decrease of CFR <2 in the CS only by Vp is a predictor of single-vessel lesion of the LCA.

850 Usefulness of contrast echocardiography in aortic dissection assessment by TEE.
Z. Gomez Bosch1, A. Evangelista2, G. Avegliano3, T. Gonzalez-Alujas4, A. Carrillo2, H. Garcia del Castillo2, A. Salas2, J. Soler-Soler2. 1Hospital Vall d’Hebron, Cardiology, Barcelona, Spain; 2Hospital de Bellvitge, Cardiology, Barcelona, Spain; 4Hospital Vall de Hebron, Cardiology, Barcelona, Spain

TEE is limited in defining all morphologic and dynamic characteristics of thoracic dissection which may be important for diagnosis and treatment. The aim of this study was to ascertain the benefit of contrast in TEE information regarding: entry tear location, true and false lumen identification, retrograde dissection and main trunk involvement diagnoses.

The aim of this study was to ascertain the benefit of contrast in TEE information regarding: entry tear location, true and false lumen identification, retrograde dissection and main trunk involvement diagnoses.

In 12 cases (33%), the additional information obtained by contrast echo was considered clinically significant.

Conclusion: Contrast in TEE is highly useful in aortic dissection assessment, particularly when the entry tear is not defined, in retrograde dissection and arterial trunk.

Eur J Echocardiography Abstracts Supplement, December 2003