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Stable Ischemic Heart Disease

A NOVEL SCORING SYSTEM FOR PREDICTION OF CARDIAC SYNDROME X IN WOMEN WITH TYPICAL ANGINA AND POSITIVE EXERCISE TOLERANCE TEST: IMPLICATIONS FOR NON-INVASIVE IMAGING

Poster Contributions

Poster Hall B1

Saturday, March 14, 2015, 3:45 p.m.-4:30 p.m.

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Abstract Category: 26. Stable Ischemic Heart Disease: Clinical

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Background: About 40% of women with typical angina and positive exercise tolerance test (ETT) have normal coronary angiographies. We performed this study to construct a scoring system for better distinguishing patients with cardiac syndrome x (CSX) than those with obstructive coronary artery disease (CAD) among women with typical angina and a positive ETT.

Methods: Data on 976 female patients with typical angina and a positive ETT who underwent coronary angiography at our center was randomly divided into derivation and validation datasets. We developed a forward stepwise logistic regression model that predicted the presence of CSX and a scoring system was derived from it.

Results: The derivation dataset had 809 patients, calibration by Hosmer Lemeshow Chi square (8) = 12.9 (p=0.115) and discrimination by area under ROC curve was 0.76 (95% confidence interval = 0.723 - 0.791). The validation dataset had 167 patients, calibration Chi square (8) = 9.0, (p=0.339) and the area under the ROC curve was 0.78 (95% confidence interval = 0.711 - 0.853). A total score > 9 was found to be optimal cut-off point for differentiation of CSX from obstructive CAD.

Conclusion: Our proposed scoring system is a simple, objective and accurate system for discrimination of CSX from obstructive CAD in women with typical angina and positive ETT.

Table 1. Independent predictors of presence of CSX in women with typical angina and positive ETT

	Coefficient	Odds ratio	95% CI for odds ratio	P-value	Score
Age (Per 5 year or part thereof under 55)	0.419	1.52	1.35 - 1.72	<0.0001	1.5
Never smoker	0.507	1.66	1.18 - 2.33	0.003	2
No diabetes mellitus	0.940	2.56	1.80 - 3.64	<0.0001	3
No hyperlipidemia	0.448	1.56	1.08 - 2.27	0.019	2
No systemic hypertension	0.644	1.90	1.38 - 2.63	<0.0001	2
Negative family history of CAD	0.509	1.66	1.15 - 2.40	0.007	2
Absence of highly-positive ETT	0.889	2.43	1.53 - 3.87	<0.0001	3

CI, Confidence Interval; CAD, coronary artery disease; ETT, exercise tolerance test.