

Characteristics of Patients Presenting to the ED with Chest-Pain The Israeli Echo Research Group

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Background: Patients presenting to emergency departments (ED) with acute coronary syndromes (ACS) are well characterized, however, less is known about characteristics of those presenting with chest pain (CP) without overt signs of ischemia. We present the clinical and echocardiographic characteristics of such patients.

Methods: Patients presenting to the ED (age>45) with CP without signs of ACS on ECG or elevated troponin level were recruited in the 2D-Strain Echocardiography for Diagnosing Chest Pain in the Emergency Room (2DSPER) multicenter study. An echo was performed within 24h of CP. Data from the first 202 patients recruited (58, b8y, 68% males) were analyzed by gender (M/F) and age (<50, 50-59, 60-69, >70).

Results: Distribution of F within age groups was: 45%, 51%, 27% and 18%. The prevalence of most risk factors increased in direct relation to age, peaking at >60: hypertension (28 to 80%), diabetes (10 to 69%), hyperlipidemia (48 to 78%), while the rate of smoking decreased (55 to 19%). Prevalence of all risk factors was higher in M vs. F.

Echocardiography: LVEF was slightly higher in F vs. M in all age groups (63% vs. 61%). E and A velocities tended to increase with age (66 to 81 and 59 to 91 cm/sec, respectively) as did E deceleration time (192 to 236 msec) and to be higher in F. E/A ratio was inversely related to age (1.2 to 0.9) and tended to be higher in F. Septal and lateral e' were inversely related to age (9.2 to 6.5 and 10.8 to 8.1 cm/sec, respectively) and were slightly higher in M. Septal and lateral E/e' ratios increased with age and in F it almost doubled (septal: F- 9.5 to 17.2 vs. M- 8.1 to 10.2; lateral F-7.0 to 14.2 vs. M- 7.0 to 8.4).

Conclusions: Patients presenting with CP but without objective ischemia demonstrate a high prevalence of risk factors which increase with age and are more prominent in males. Their systolic function was normal but diastolic dysfunction tended to increase with age and with F gender.