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Transthoracic Doppler Sampling of Left Main and Left Anterior Descending Coronary Artery Velocities

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Doppler trans-thoracic sampling of coronary artery velocities is possible, especially of the left anterior descending coronary artery. Left main coronary artery (MLCA) evaluation and velocity measurement is important.
Aim: Evaluate feasibility of Doppler sampling velocities of MLCA in addition to LAD.
Methods: Twenty five subjects were evaluated. MLCA Doppler sampling was achieved from apical five chamber views, while LAD velocities were recorded from modified short axis or apical two chamber views using adult echocardiographic transducer while the patient lying in a left decubitus position.
Results: Peak MLCA velocities in diastole 75.4±32cm/sec and in systole 45.6±21.8 cm/sec, as well time velocity integrals in diastole 25.7±12.3 cm and in systole 9±5.8cm were all at least twice the values in the LAD. Diastolic deceleration and pressure half times of the velocity curve of MLCA were similar to those of the LAD.
Conclusions: Transthoracic Doppler sampling of velocities of MLCA is feasible. MLCA velocities were higher than those of the LAD.