



IMAGING AND DIAGNOSTIC TESTING

THE PROGNOSTIC VALUE OF CORONARY VESSEL DOMINANCE AS DETERMINED USING COMPUTED TOMOGRAPHY CORONARY ANGIOGRAPHY

ACC Poster Contributions

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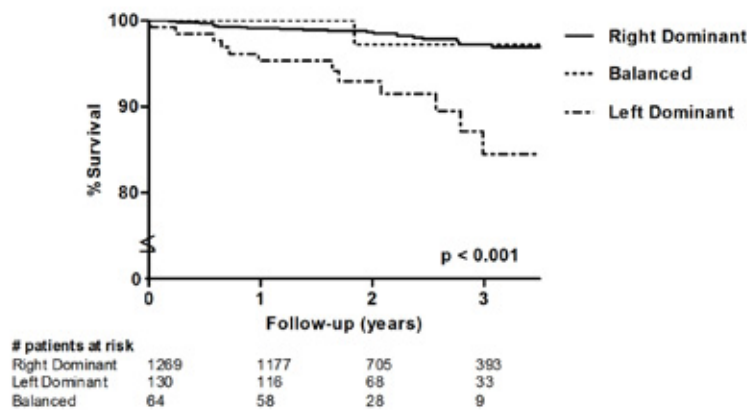
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Background: Limited information is available about the difference in prognosis between patients with right dominant (RD), left dominant (LD) or balanced coronary artery system. The purpose was to determine the prognostic value of coronary vessel dominance as assessed on computed tomography coronary angiography (CTA).

Methods: A total of 1463 patients (57% men, 57 ± 12 years), referred for 64-row or 320-row CTA, were analyzed. All patients were classified as having a RD, LD or balanced coronary artery system. Cox regression analysis and Kaplan Meier analysis were used to determine the prognostic value of coronary vessel dominance, with all cause mortality as an endpoint. Patients with RD system were considered the reference group, to which a hazard ratio (HR) of 1.0 was designated for comparison purposes.

Results: The prevalence of a RD, LD and balanced system was 86.7%, 8.9% and 4.4%, respectively. During follow-up (median 24.4 months, 25th-75th percentile 14.5-36.9 months), death occurred in 38 patients (2.6%). On multivariate analysis LD system was a significant predictor of mortality (HR 5.1; 95% CI 2.5-10.5, p < 0.001, while balanced system did not predict mortality (HR 1.1; 95% CI 0.2-8.4, p = 0.911). A Kaplan Meier survival curve for patients with RD, LD and balanced systems is shown in Figure 1.

Figure 1. Kaplan Meier Curve for Mortality



Conclusion: LD coronary artery system as determined on CTA was identified as a significant predictor of mortality. Therefore, the assessment of coronary vessel dominance may add to patient risk stratification.