

ULTIMATE TRIAL



Intravascular Ultrasound Versus Angiography-Guided Drug-Eluting Stent Implantation - Three-Year Outcomes

Prospective, investigator-initiated, randomized trial



Objective: To evaluate the difference in target vessel failure (TVF) 3 years after intravascular ultrasound (IVUS) versus angiography guided second-generation drug-eluting stent (DES) implantation.

1448
patients

Inclusion criteria: Patients with silent ischemia, stable or unstable angina, or myocardial infarction (MI) with more than 24 hours between chest pain and admission, and a de novo coronary lesion requiring DES implantation.



IVUS
guidance
(n = 724)



Angiographic
guidance
(n = 724)

PRIMARY OUTCOME

6.6

Target vessel failure %
HR 0.60; 95% CI 0.42-0.87; P=0.01

10.7

4.3

All-cause death %
HR 0.99; 95% CI 0.60-1.63; P=0.98

4.4

5.9

Target lesion failure %
HR 0.57; 95% CI 0.39-0.83; P=0.003

10.2

Conclusion: IVUS-guided DES implantation was associated with significantly lower rates of TVF during a 3-year follow-up in all-comers, particularly for patients who had an IVUS-defined optimal procedure, compared with those with angiography guidance.