BACKGROUND

“Acute stent thrombosis associated with exercise testing after successful percutaneous transluminal coronary angioplasty.”

Am Heart J 1995

“Coronary dissection and thrombosis associated with exercise testing three months after successful coronary stenting.”

Clin Cardiol 1999

Early exercise after coronary stenting is safe

J Am Coll Cardiol 2003

With dual antiplatelet therapy, stent thrombosis is a very rare event. A little is reported about safety of exercise training immediately after elective coronary stenting.

OBJECTIVE

To investigate whether ET increases the incidence of stent thrombosis (ST) in patients undergoing coronary stenting.

EXCLUSION CRITERIA

Clinical exclusion criteria were recent or ongoing myocardial infarction (MI), symptomatic main vessel or side branch occlusions, access site-related complications, persistent chest pain or new ST-segment deviation, or final coronary flow less than TIMI (Thrombolysis In Myocardial Infarction) grade 3. Patients selected occurred at the end of the coronary procedure, in the absence of exclusion criteria. A physician obtained the follow-up by phone interview at 6, 12, 24 and 36 months. Follow-up data were obtained from hospital charts or by contacting patients or referring physicians.

ST was defined as follows, according to Academic Research Consortium (ARC) definition.

ST was defined as a MI in the same territory and any unexplained death within the first 30 days.

Possible ST was defined as a MI in the same territory and any unexplained death after 30 days.

MI was defined by a significant elevation of serum biomarkers (troponin above the MI level or creatinine kinase of twice the normal level) or new Q waves on the electrocardiogram. Stroke was defined as cerebral stroke that persisted for at least 24 h and indicated the occurrence of a neurological deficit.

Cardiovascular disease was regarded to present when creatinine clearance estimated by the Cockcroft-Gault formula was < 60 mL/min. Exercise habit was defined as routine exercise for at least 20 minutes at least two times a week and it was continued for more than 1 year.

Statistical analysis.

Values are reported as means ± SD. All analyses were based on an intention-to-treat principle. Continuous variables were examined by use of the unpaired T-test or nonparametric analysis by the Mann-Whitney U-test. Categorical variables were compared by the chi-square test. Time-dependent outcomes were analyzed by the Kaplan-Meier method and compared by log-rank test. A probability value of <0.05 was considered statistically significant.

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PATIENT FLOW

1375 Assessed Eligibility

Not Eligible (n=19)

Not meeting inclusion criteria

3672 Enrolled

Patients decided whether to participate in exercise or not by themselves.

ENDPOINT

Primary Endpoint

Incidence of stent thrombosis

Secondary Endpoint

1) MACE (Death, non-fatal MI, CABG, Stroke)

2) All-cause Mortality

3) Unscheduled hospital visit for worsening angina

RESULTS

REFERENCES

DISCLOSURES

No conflict of interest