

Long-term Clinical Outcome after First Definite Stent Thrombosis

On behalf of the Dutch Stent Thrombosis Registry investigators

J.W. van Werkum,

A.A.C.M. Heestermans, F. de Korte, J.C. Kelder, M.J. Suttorp, B.J.W.M. Rensing, B. Zwart, B.R.G. Brueren, J.J. Koolen, J.H.E. Dambrink, A.W.J. van 't Hof, F.W.A. Verheugt, J.M. ten Berg



Background

- Estimated incidence of Stent thrombosis (both DES and BMS): 1-4%
- Short-term clinical outcome after ST varies in registries (mortality 10- 40%)¹⁻³
- Long-term clinical outcome after ST is less extensively studied

¹Iakovou, JAMA 2005

²Kuchulakanti, Circulation 2006

³de la Torre-Hernández, JACC 2008



Dutch Stent Thrombosis Registry

- Multicenter observational study, enrolling all consecutive patients with stent thrombosis
- Inclusion period: Jan 2004 – Feb 2007
- Angiograms (index procedure + stent thrombosis) were reviewed independently by two interventionalists
- Follow-up: patient interview, hospital records, referring physicians, general practitioner and pharmacies



Aim

- To study the short- and long-term clinical outcome after a first “*definite*” stent thrombosis
- To identify predictors of adverse clinical outcome



Endpoints

Primary:

- A composite of cardiac death and definite recurrent stent thrombosis

Secondary:

- Death (Cardiac and All-cause)
- Definite and definite + probable recurrent ST
- Any Myocardial Infarction
- Any TVR

431 patients with a first “definite” stent thrombosis

Inclusion period: Jan 2004 – Feb 2007

421 Emergent PCI's:

- 203 Balloon angioplasty alone
- 214 PCI with additional stent
- 4 aspiration only

10 patients:

- 4: target artery too small
- 2: emergent CABG
- 2: passage failure of balloon
- 2: died before reperfusion

MACE



Follow-up and In-hospital MACE

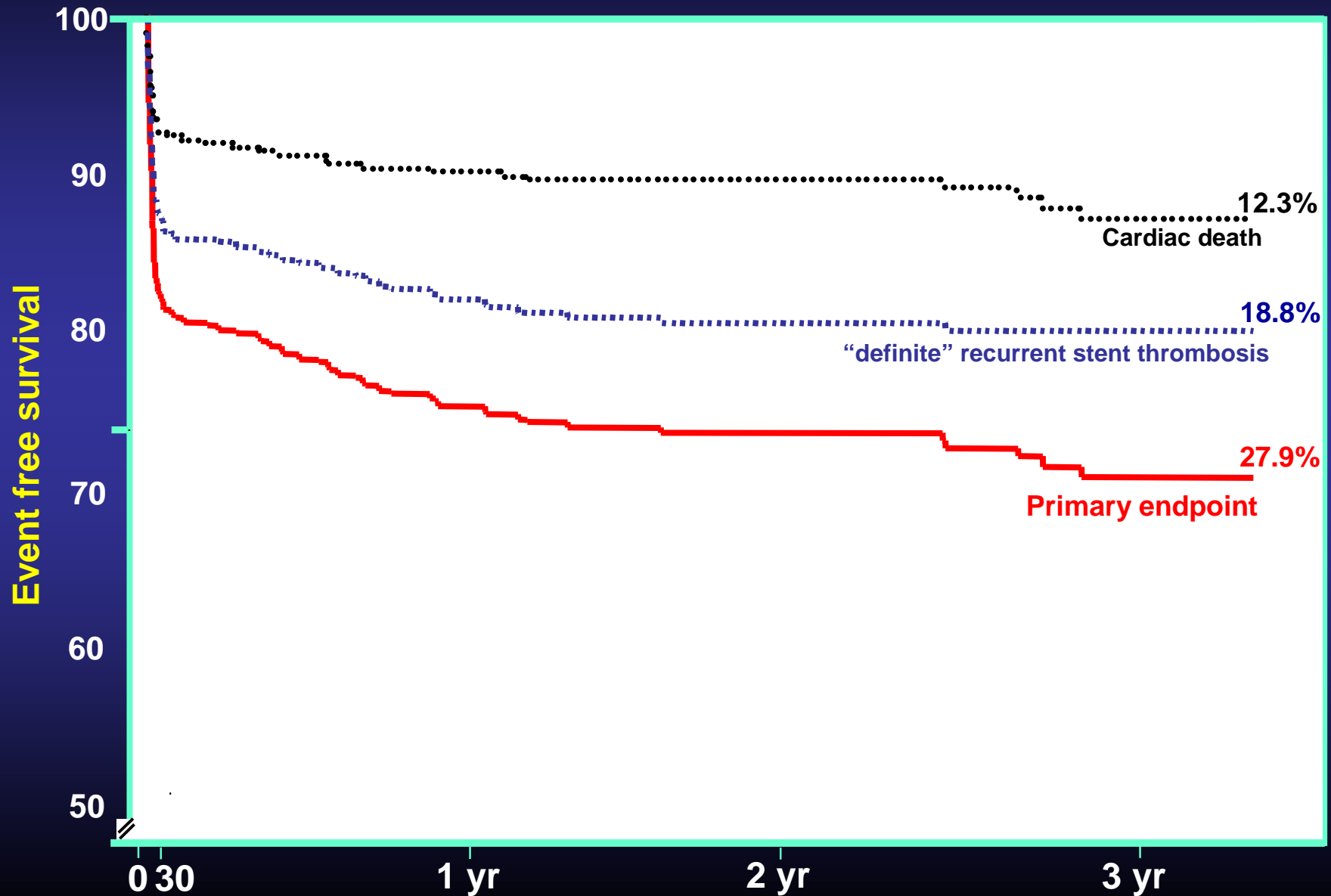
- Median follow-up: 27.1 months [IQR 17.4-37.1]
- Follow-up was available in 416 (96.5%) pts

Primary Endpoint in Hospital

Cardiac death	26 (6.0%)
Definite recurrent ST	44 (9.3%)



Primary Endpoint





Conclusions

- Long-term survival after *definite* stent thrombosis \pm 85%
- Recurrent stent thrombosis \pm 20%
- Predictors of unfavourable outcome:
 - DM
 - LVEF <45%
 - Severe lesion calcification
 - Complex lesion stenting
 - Longer stent length
 - LAD stenting
 - Additional stent implantation during ST
 - TIMI flow post ST <3