

Prospective application of a risks-adjusted antithrombotic protocol in elderly patients treated with the last generation of everolimus-eluting stents. The SIERRA-75 (EPIC-05) registry

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Background: Elderly patients show a higher incidence of ischemic and bleeding events after PCI.

Purpose: We sought to investigate clinical outcomes in elderly patients revascularized with last generation everolimus-eluting stent (EES) treated with antithrombotic strategies guided by bleeding and ischemic risks.

Methods: Prospective multicenter registry including patients over 75 years revascularized with EES and subsequent antithrombotic therapy guided according to a protocol based on clinical presentation, PCI complexity and the PRECISE DAPT score. The primary safety endpoint was a composite of cardiac death, myocardial infarction and definitive/probable stent thrombosis and the primary efficacy endpoint was TLR. An historical matched group of patients treated with current drug eluting stents other than EES was used as control.

Results: Finally, 1,064 patients were included, 80.8±4.2 years, 36.6%

women, 72% ACS and 53.6% complex PCI. Primary safety endpoint was met in 6.2% and primary efficacy endpoint in 1.5%. Bleeding BARC 2–5 was reported in 7.8% and definite or probable stent thrombosis in 1.3%. The multivariable adjusted model showed no significant association of the prescribed short/long therapies with any endpoint. No stent thrombosis were reported in the subgroup with shorter DAPT duration. As compared to control group, bleeding BARC 2–5 was significantly lower in SIERRA-75 group (7.4% vs 10.2%, p=0.04) as well as the composite of MACE and bleeding (14.3% vs 18.5%, p=0.02).

Conclusions: In elderly population the use of last generation EES along with a predefined risks-adjusted antithrombotic regimen seems to be associated with an improved prognosis in terms of ischemic and bleeding outcomes.