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more frequent in the nonagenarian group (p = 0.017). After multivariate adjustment, risks for death or MI at 30 days and 1 year in patients 90 years of age and older remained significant compared with septuagenarians (adjusted hazard ratios: 5.7 [95% confidence interval: 2.2 to 15.2] and 3.0 [95% confidence interval: 1.8 to 4.8]).

In this study, we report the outcomes of PCI in 182 nonagenarian patients, which appears to be the largest series yet to be reported from a single center thus far. Our study shows that age ≥90 years is an independent factor for death or MI at 30 days and 1 year. These findings are in accordance with the limited number of studies done in the past on a similar patient population (2,3), but none of them compared septuagenarians, octogenarians, and nonagenarians. Also, our study has revealed that the immediate procedural complications were not statistically significantly different among these 3 age groups.

The reasons for these adverse outcomes in nonagenarians could be multifold. Very elderly patients have complex, multivessel disease requiring challenging multivessel interventions. Age leads to significant coronary calcification (4), and interventions for this lead to inadequate stent expansion and in-stent restenosis. Noncardiac comorbid conditions commonly associated with aging also play a substantial part in triggering adverse periprocedural outcomes. Despite modern interventional techniques and concomitant treatment, elderly patients who undergo PCI for acute coronary syndrome have a worse prognosis than younger patients. Among patients in stable condition, the randomized TIME (Trial of Invasive Versus Medical Therapy in Elderly Patients) study (5) showed similar outcomes in octogenarians treated invasively versus medically. Age remains an important predictor of major adverse cardiac events after PCI even in the very elderly. Future studies to evaluate strategies to improve the last years of life in this very elderly population, along with developing age-specific guidelines for treatment of coronary artery disease and performing PCI, are warranted.

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Bioresorbable Everolimus-Eluting Vascular Scaffold for Long Coronary Lesions

A Subanalysis of the International, Multicenter GHOST-EU (Gauging coronary Healing with bioresorbable Scaffolding plaTforms in EUrope) Registry

We read with great interest the manuscript by Geraci et al. (1), reporting a subanalysis of the GHOST-EU (Gauging coronary Healing with bioresorbable Scaffolding plaTforms in EUrope) registry on long coronary lesions treated with bioresorbable vascular scaffolds (BVS). The authors conclude that treatment of very long coronary lesions with BVS (≥60 mm) was associated with a higher target lesion failure rate if compared to treatment with shorter length of BVS (either ≤30 mm or 30 to 60 mm).

However, the message of the study could be misleading. First, it is difficult to draw any conclusion on clinical hard endpoints taking into account a subgroup of 81 patients. Second, the differences in target lesion failure rate among groups (≥60 mm vs. others) can be explained by unbalanced baseline and

procedural characteristics between the 3 groups. Well-established confounding factors such as diabetes mellitus II, ostial lesions, and lesion length emerged have predictors of adverse events at the multivariate analysis and, obviously, were significantly more frequent in patients treated with ≥60 mm of BVS. Third, this finding is not new. A recent study showed that patients and lesions complexity impact on major adverse cardiac events (MACE) in patients treated with new-generation drug-eluting stents (DES) exactly in the same way (2). As correctly showed by authors in Table 6, the MACE rate in the ≥60-mm group is superimposable with one of the previous trials with DES. Thus, the difference in the outcome is attributable to patient and lesion complexity rather than to the use of a specific device.

A really important issue raised by authors is the unacceptably high rate of scaffold thrombosis (3.8% at 1 year) in the ≥60-mm group. Their worrisome results have been recently reinforced by presented and published data (3,4) confirming that BVS are more prone to device thrombosis than DES are. However, we have no information on how overlap was performed in the study and no standard implantation technique was implemented (namely aggressive pre-dilatation, sizing, post-dilatation). Previously published data have shown that with a systematic correct implantation technique imaging-guided, overlapping BVS could be comparable to second-generation DES (5).

In conclusion, we think that given the recent amount of worrisome results on BVS, it is of paramount importance to wait for a greater body of evidence coming from big populations with standardized procedures rather than to raise further question marks on small unmatched populations.

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REPLY: Bioresorbable Everolimus-Eluting Vascular Scaffold for Long Coronary Lesions

A Subanalysis of the International, Multicenter GHOST-EU (Gauging coronary Healing with bioresorbable Scaffolding plaTforms in EUrope) Registry

Drs. Biscaglia and Campo argue against the conclusions of our study that "treatment of very long coronary lesions (scaffold length ≥60 mm) with BVS [bioresorbable vascular scaffolds] was associated with a high target lesion failure [TLF] rate" (1). Indeed, the rate of TLF at 12 months in our study was as high as 14.3%. In their letter, Biscaglia and Campo raise a number of "straw man" arguments, refuting conclusions we did not advance. This is particularly reflected in their observation that the difference in the outcomes of longer and shorter lesions with BVS in our study was "attributable to patients and lesions complexity rather than to the use of a specific device," the latter being an interpretation we did not even consider in our report, because of lack of a drug-eluting stent (DES) comparator. The comparative efficacy of BVS and DES in long lesions is a question for ongoing randomized clinical studies (i.e., ABSORB-LONG [Everolimus-Eluting Bioresorbable Scaffolds Versus Everolimus-Eluting Metallic Stents for Diffuse Long Coronary Artery Disease; NCT02831205], Compare Absorb [ABSORB Bioresorbable Scaffold vs. Xience Metallic Stent for Prevention of Restenosis in Patients at High Risk of Restenosis; NCT02486068]).

GHOST-EU (Gauging Coronary Healing With Bioresorbable Scaffolding Platforms in Europe) was an early experience with the Absorb BVS in a large, real-world population (2). The retrospective and multicenter nature of the registry, with absence of a pre-specified implantation technique, implied substantial differences in scaffold implantation techniques and imaging use among the centers. To support the concept that treatment of long lesions with overlapping BVS achieves outcomes comparable