

more factor to be considered when determining patient suitability for transcatheter implantation. Variables such as calcium quantity and distribution, the width of the sinuses of Valsalva, outflow tract diameter or computed tomography-measured annulus diameter (maximum annulus diameter was 23.9 mm) must also be analyzed.

Since percutaneous implantation techniques began to be used for aortic valves, previous valvuloplasty has been considered obligatory to facilitate the progress and optimal expansion of the prosthesis.⁵ Although several cases of direct valve-in-valve implantation of Edwards-SAPIEN prostheses without previous valvuloplasty have been described, we are not aware of any cases of direct native valve implantation in patients with aortic stenosis. Grube et al.⁶ recently described CoreValve[®] self-expanding prosthesis (Medtronic; Minneapolis, Minnesota, United States) implantation without valvuloplasty, and concluded that the technique was safe and feasible. Balloon valvuloplasty can cause severe aortic regurgitation and hemodynamic instability in some patients and could favor the migration of calcium particles to the cerebral circulation. Direct implantation without valvuloplasty would avoid these complications in some patients with favorable anatomy (low levels of calcification, homogeneous distribution and symmetrical native valve opening).⁶ Moreover, given native valve characteristics, prosthesis placement and expansion might be the same or better than when using the conventional technique. In our patient these anatomic criteria were favorable, with moderate valve calcification.

The difficulties that might be encountered during implantation and their possible solutions are as follows:

- Advancing the prosthesis through the native valve may not be feasible. Should this occur, it is essential to avoid forcing progress and perform valvuloplasty via the contralateral femoral artery delivery catheter.
- Correctly positioning the prosthesis may be difficult if valve calcification is minimal. Hence, we consider the use of echocardiography during implantation to be essential.
- Given that the Edwards-SAPIEN XT prosthesis expands by volume, expansion may be insufficient. We believe that slow, progressive balloon inflation, maintained for ≥ 5 s during implantation ensures adequate expansion.

One further advantage—although it was not considered essential when choosing the technique described—is that if this technique is shown to be appropriate for specific patients, kits

could be prepared for this patient group, which would cut the cost of packs with no balloon.

This is the first case of transfemoral implantation of an Edwards-SAPIEN XT aortic prosthesis without previous valvuloplasty. We believe it is technically possible and could be safer than traditional implantation in suitable patients (those with low levels of valve calcification, homogeneous calcium distribution and a symmetrical opening). In these patients, some of the complications inherent to valvuloplasty can be avoided. If this initial experience leads to equal levels of safety and efficacy in future patients, eliminating the balloon from the kits prepared for these patients could help lower the costs of transfemoral implantation of this prosthesis.

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Is it Appropriate to Compare the Results From Two Clinical Trials With One Drug in Common?

¿Es apropiada la comparación de resultados de ensayos clínicos con un fármaco en común?

To the Editor,

When 2 clinical trials compare 2 new drugs using the same comparator and in similar patients, it is tempting to compare the results to decide which of the new drugs is better.

We recently came across such a comparison during our teaching activities in connection with the results from the TRITON-TIMI 38 (TRial to Assess Improvement in Therapeutic Outcomes by Optimizing Platelet Inhibition with Prasugrel–Thrombolysis In Myocardial Infarction),¹ which tested the efficacy

of prasugrel vs clopidogrel in patients with acute coronary syndrome (ACS) treated with percutaneous coronary intervention (PCI) compared with those of the Platelet Inhibition and Patient Outcomes (PLATO) trial,² which evaluated the efficacy of ticagrelor also in comparison with clopidogrel in patients with ACS. All 3 drugs are inhibitors of the platelet P2Y₁₂ receptor and are used in combination with acetylsalicylic acid and sometimes with glycoprotein IIb/IIIa inhibitors in patients with ACS.

Although a study indirectly comparing the efficacy of prasugrel and ticagrelor was recently published,³ we believe that the comparison was inappropriate due to methodological differences between the studies, differences in the characteristics of the patients included and, to a lesser extent, the length of time between the studies.

There was an interval of 2 years between the 2 studies, which may have led to small differences in clinical practice that the

Table
Comparison of Principal Baseline Characteristics and Occurrence of Clinical Events During a 12-Month Follow-up^a Between the TRITON and PLATO Studies

	TRITON, % n=13 608	PLATO, % n=18 624	Difference, %	95% CI	P
A. All patients					
Age >75 years	13.0	15.5	-2.5	(-3.2 to -1.7)	<.001
Female	26.0	28.4	-2.4	(-3.4 to -1.4)	<.001
Caucasian	92.5	91.7	0.8	(0.2 to 1.4)	.009
History					
Smoking	38.0	35.9	2.1	(1.1 to 3.2)	<.001
High blood pressure	64.0	65.4	-1.4	(-2.5 to -0.4)	.009
Dyslipidemia	56.0	46.7	9.3	(8.2 to 10.4)	<.001
Diabetes mellitus	23.0	25.0	-2.0	(-3.0 to -1.1)	<.001
Myocardial infarction	18.0	20.5	-2.5	(-3.4 to -1.7)	<.001
Coronary surgery	7.5	5.9	1.6	(1.0 to 2.1)	<.001
Diagnosis					
STEMI	26.0%	37.7	-11.7	(-12.7 to -10.7)	<.001
NSTEMI	74.0%	59.4	14.6	(13.6 to 15.6)	<.001
Clopidogrel therapy prior to randomization	0.0	46.1	-46.1	(-45.2 to -46.7)	<.001
Clopidogrel loading dose ≥600 mg	0.0	19.6	-19.6	(19.0 to 20.2)	<.001
Treatment with glycoprotein IIb/IIIa inhibitors	55.0	26.8	28.2	(27.1 to 29.2)	<.001
B. Control group patients (treated with clopidogrel)	n=6795	n=9291			
Combined cardiovascular events ^b	9.8	11.7			^c
Cardiovascular mortality	1.9	5.1			^c
Any cause mortality	2.6	5.9			^c
Non-fatal MI	7.7	6.9			^c
Non-fatal stroke	0.8	1.3			^c

95%CI, 95% confidence interval; GPIIb/IIIa, glycoprotein IIb/IIIa; MI, myocardial infarction; NSTEMI, non-ST-segment elevation myocardial infarction; STEMI, ST-segment elevation myocardial infarction.

^a Incidence in the TRITON study was calculated by assuming a linear function and using the formula: $1 - \exp(-((1 - \text{incidence})/15 \times 12))$.

^b Death from any cardiovascular cause, non-fatal myocardial infarction, or non-fatal stroke.

^c P values could not be calculated as the original articles did not provide standard errors of the rates.

studies did not measure. Although both studies used the same main event used to measure efficacy, differences in the design, the duration of follow-up, the inclusion criteria, and the dose of the drugs being tested limited the comparability of results. By protocol, in TRITON all patients were assigned to coronary catheterization without initial dual antiplatelet therapy; candidates for angioplasty were randomized to prasugrel or clopidogrel. As a result, all patients in this study underwent angioplasty. In contrast, patients in the PLATO study were randomized to ticagrelor or clopidogrel on admission to hospital regardless of whether they were to receive catheterization and/or coronary angioplasty. Thus, there were differences between the 2 studies not only in terms of patient characteristics, but also in the antiplatelet therapies used.

We compared the baseline characteristics of patients included in the 2 trials (Table A), and the incidence of events to 12 months in patients treated with clopidogrel (Table B). PLATO included patients with more severe acute events than TRITON (Table). For example, the PLATO trial included about 38% of patients with acute myocardial infarction and ST-segment elevation (STEMI) and 65% with PCI, while the TRITON study included approximately 26% of patients with STEMI, all with PCI. Antiplatelet therapy differed in the 2 studies: in PLATO, 46.1% received clopidogrel before randomization and 19.6% received a loading dose of clopidogrel ≥600 mg, while in TRITON no patient received prior clopidogrel and the loading dose was always <600 mg. Furthermore, in TRITON, 55% of patients received triple antiplatelet therapy with glycoprotein IIb/IIIa inhibitors vs 26.8% in PLATO.

In terms of events, the median follow-up in the PLATO trial was 9.1 months compared to 14.5 months in the TRITON study. A

comparison of the incidence of cardiovascular events in the control group (treated with clopidogrel and acetylsalicylic acid) in the 2 clinical trials showed that the rate was higher in the PLATO control group (Table B). These data support the idea that there were differences in the clinical risk profiles of patients in the 2 studies.

We believe that any comparison between prasugrel and ticagrelor using the published results of these 2 studies is not valid. A conclusion might be possible if participants' individualized data were available, by selecting subgroups, and/or by adjusting exposure to the study drugs by relevant covariates. Clearly, though, as the recent National Institute for Clinical Excellence guidelines for the use of ticagrelor indicate,⁴ a new clinical trial with sufficient statistical power to compare the 2 drugs is needed. Indirect comparisons in which patient characteristics differ are inappropriate, should be discouraged, and the scientific community should actively avoid this type of analysis.

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CONFLICTS OF INTEREST

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Ischemia: Substrate or Trigger?

Isquemia, ¿sustrato o desencadenante?

To the Editor,

Sustained monomorphic ventricular tachycardia (SMVT) in the setting of an anterior acute myocardial infarction (AMI) is rare.

We present a case that illustrates the diagnostic, prognostic and therapeutic implications of this entity.

The patient was a 47-year-old male smoker, with type 2 diabetes without prior episodes of chest pain, who had experienced several syncope episodes at home. He had been treated by the emergency services, with documented SMVT at 140 bpm, with left bundle-branch block morphology and superior axis (Fig. 1A). Sinus rhythm was restored by electrical cardioversion. There was

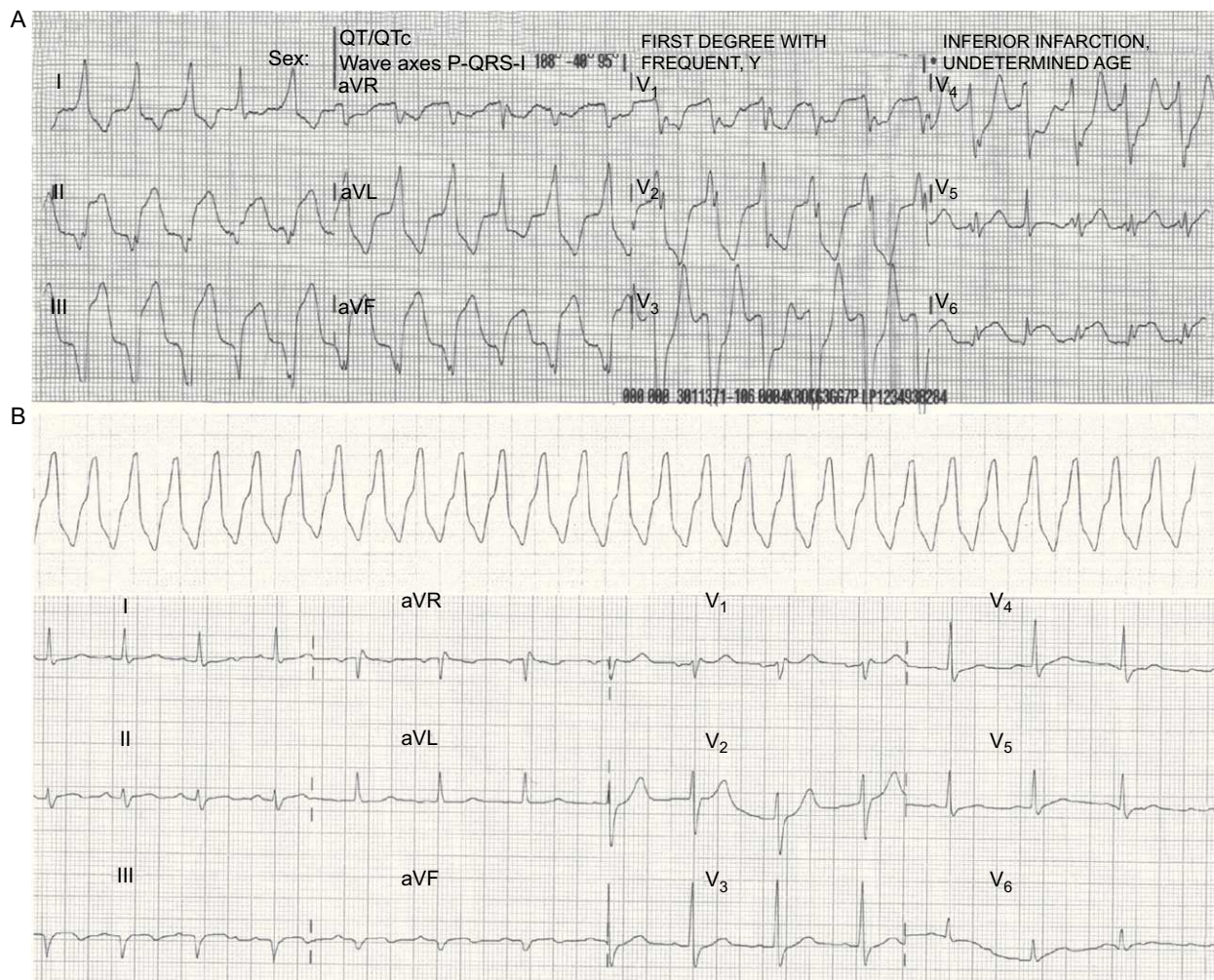


Figure 1. A: 12-lead electrocardiogram during sustained monomorphic ventricular tachycardia at 140 bpm, with left bundle-branch block morphology, superior axis and fusion complexes. B: 1-lead telemetry tracing of sustained monomorphic ventricular tachycardia at 160 bpm. C: 12-lead electrocardiogram in sinus rhythm with a mild residual decrease in ST-segment elevation in inferior wall leads.