mechanical support measures comprises two devices: Impella<sup>®</sup> and ECMO plus VA. Percutaneous Impella<sup>®</sup> produces an increase in cardiac output of 2.5-4.0-5.0 liters and, although its cost is approximately 3-fold higher than that of VA-ECMO, the device appears to be effective for the performance of angioplasty in high-risk patients. However, in patients in whom femoral access is not possible or those having severe aortic stenosis, which were the cases in our patients nos. 1 and 4, respectively, its use is not possible.

The implantation of VA-ECMO is considered to be an aggressive technique because of the vascular complications derived from the size of the cannulas and the hematomic complications inherent in an extracorporeal circuit. In our experience, these complications are minimized by limiting the use of VA-ECMO to the duration of the procedure, ensuring safety and hemodynamic stability when they are technically difficult, in unstable and very high-risk patients. Moreover, the possibility of providing partial circulatory support enables the use of smaller cannulas, reducing the rate of vascular complications.

Finally, we subscribe to the initiative proposed by Ariza-Solé et al concerning the creation of a high-quality, prospective, multicenter registry to gather all the available experience with the use of VA-ECMO in the different clinical scenarios associated with the cardiology patient. Once again, the idea is to extend the utilization of this strategy for circulatory support in cardiac critical care units.

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REFERENCES


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that the patient profile of both studies bears little resemblance to that seen in everyday practice and consequently the results should be interpreted with caution.

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Thrombectomy in Primary Angioplasty: Do the Latest Large Studies Address the Doubts About Its Usefulness? Response

Thrombectomy en angioplastia primaria: ¿aclaran los últimos grandes estudios las dudas sobre su utilidad? Respuesta

To the Editor,

We would like to thank Dr. Lozano et al. for their interest in our meta-analysis, which investigated clinical and procedural outcomes of aspiration thrombectomy-assisted primary percutaneous coronary intervention compared with conventional primary percutaneous coronary intervention in patients with ST-segment elevation myocardial infarction.1 Among unselected patients with ST-segment elevation myocardial infarction, aspiration thrombectomy-assisted primary percutaneous coronary intervention did not improve clinical outcomes at a weighted mean follow-up time of 10.4 months, despite improved epicardial and myocardial parameters of reperfusion.

Out of 26 randomized trials, only the TASTE trial (Thrombus Aspiration in ST-Elevation myocardial infarction in Scandinavia) was powered for clinical outcomes.2 Its primary endpoint was all-cause mortality at 30 days; and, based on Swedish registry data, the steering committee assumed an event rate of 6.3%. To show a 30% higher mortality without thrombectomy with 80% statistical power, the trial required the occurrence of 456 events and planned to include 5000 patients. The sample size of the trial was extended due to a lower than expected rate of death (ie, 2.9% in the first 5000 patients). Final results included 7244 patients with no differences between treatment arms.

Given the innovative trial design (ie, registry-based randomized trial), the authors simultaneously published outcomes in patients who were not randomized—more than one third—and showed that event rates were much higher than those in patients included in the randomized trial. The most frequent reason for not having been randomized was inability to provide informed consent, which generally applies to patients in critical condition (eg, intubated, cardiogenic shock). Thus, the use of thrombectomy in an unrestricted ST-segment elevation myocardial infarction population did not show a benefit in the randomized trial, findings which were confirmed in the nonrandomized population at higher risk, attesting to the external validity of the TASTE trial results.

The results of the TOTAL trial3 were presented after our meta-analysis and were consistent with our findings regarding clinical endpoints, except for stroke.

CONFLICTS OF INTEREST

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