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Reply to the Editor:

We thank Drs Nosotti, Simone, and Cioffi for their kind remarks and excellent commentary regarding our recent publication.¹ Endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) is truly an emerging technology that allows safe and accurate assessment of the mediastinum in patients with non-small cell lung cancer. We also anticipate the results of the ASTER trial² with hopes that it will further validate our findings.

We also understand the valid point made regarding the utility of rapid on-site evaluation during EBUS-TBNA. To this end, recent studies have sought to investigate the utility of rapid on-site evaluation.^{3,4} However, in a practical sense, it may not always be possible to have access to the service of an experienced cytopathologist at all times during the performance of EBUS-TBNA. Practice patterns ultimately are developed with the resources that are available within a given institution.

Altogether, EBUS-TBNA provides a safe and reliable method of assessing the mediastinum in patients with non-small cell lung cancer. Whether the results are available instantaneously or in a couple of days, what matters the most is achieving an accurate result.

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BENEFITS AND RISKS OF USING CLOPIDOGREL BEFORE CORONARY ARTERY BYPASS SURGERY: A ROLE OF PLATELET FUNCTION ASSESSMENT

To the Editor:

We read with great interest the recently published systematic review and meta-analysis of randomized trials and observational studies by Biancari and colleagues.¹ When assessing the influence of preoperative antiplatelet therapy (APT) administration management on bleeding and adverse ischemic events, the objective quantification of platelet activity should inextricably be included in the considerations. Expected inhibition of platelet function is not always achieved after APT administration. The frequency of low responsiveness to aspirin and clopidogrel has been reported to range from 1% to 45% for the 2 drugs.² The efficacy of platelet inhibition with aspirin and clopidogrel varies widely among patients, from intensive platelet inhibition to poor platelet response. The effect of clopidogrel on bleeding mainly depends on 2 factors: (1) observed platelet inhibition, which depends on inherent platelet activity before clopidogrel administration and platelet inhibitory response to clopidogrel, and (2) the ability of newborn platelets to restore normal aggregation after clopidogrel

discontinuation. This results in individual widespread variability in the activity of adenosine diphosphate platelet receptors, which consequently reflects similar variability in proclivity to excessive bleeding or adverse ischemic events. Awidi and colleagues³ found that the combination of aspirin and clopidogrel had greater inhibitory effects on platelet aggregation than either agent alone. There is evidence that certain patients have an accentuated response to the usual doses of preoperative aspirin that may result in increased perioperative blood loss.⁴ Therefore, the benefits and risks of using clopidogrel before coronary artery bypass grafting (CABG) should be individually assessed according to platelet function tests, and the role of aspirin should inevitably be included in the considerations. For patients receiving dual APT (aspirin + clopidogrel) before CABG, the influence of aspirin on bleeding and ischemic adverse events should be examined separately using an aspirin-sensitive platelet function test. The role of aspirin and clopidogrel should be assessed separately by drug-specific platelet function tests to provide the most precise and reliable information on the benefits and risks of preoperative administration for each antiplatelet agent, thus facilitating an individual approach to patients with the aim of reducing bleeding and adverse ischemic events. Evaluation of the effect of APT (aspirin or clopidogrel) on both bleeding and ischemic events should be based on platelet function assessment with subsequent distinction of patients with high residual platelet activity, thus a proclivity to ischemic events, or enhanced platelet inhibition, thus a proclivity to excessive bleeding. The group of patients with pronounced platelet inhibition observed during APT could benefit from early preoperative APT withdrawal in terms of excessive bleeding prevention. For patients undergoing CABG, individually tailored APT administration management based on platelet function tests, both pre- and

postoperatively, can help reduce both bleeding and ischemic events. Such an approach requires further studies to provide a precise and comprehensive view on the relationship between APT administration management and bleeding and ischemic events through achieved platelet inhibition quantified by platelet function tests.

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SUTURELESS AORTIC VALVE REPLACEMENT TO PREVENT PATIENT-PROSTHESIS MISMATCH IN THE ERA OF VALVE-IN-VALVE IMPLANTATION

To the Editor:

Patient–prosthesis mismatch (PPM) is a matter of intense debate in cardiac surgery. Although there is general support for the “bigger is better” hypothesis,¹ no uniform conclusion can be drawn about the impact of PPM on clinical outcome because results are

inconsistent across studies. More recently, the debate has gained renewed impetus with the advent of transcatheter aortic valve implantation and the implementation of the valve-in-valve procedure for degenerated bioprostheses.² We read with great interest the article by Seiffert and colleagues,³ who reported their experience with 11 patients undergoing transcatheter aortic valve-in-valve implantation. Approximately half of the study patients had signs of severe PPM, and the remainder had at least moderate PPM, with the exception of 1 patient, who had an indexed effective orifice area greater than 0.85 cm²/m². In addition, no significant reduction in transvalvular gradients was observed after the procedure in patients with severe PPM. These results might lead us to conclude that the procedure was hemodynamically unsuccessful in 45% of patients.

The lack of efficacy of the procedure in decreasing aortic valve gradients is part of a broader controversy surrounding the optimal treatment for high-risk patients in the context of a multidisciplinary management approach that combines patient needs and economic resources. As previously suggested for high-risk patients by our group,⁴ we would like to contribute to the debate regarding the most appropriate valvular procedure in reoperative surgery by briefly describing our experience with patients undergoing reoperative aortic valve replacement for degenerated bioprostheses. At our institution, 6 patients with previous aortic valve replacement underwent implantation with a Perceval S sutureless valve (Sorin Group, Saluggia, Italy). Despite their advanced age at the time of intervention (78.5 ± 4.6 years) and the high operative risk (logistic EuroSCORE of $28.5\% \pm 20.7\%$), at 1 year after implantation all patients are alive and in good hemodynamic condition ($n = 4$ in New York Heart Association class I and $n = 2$ in New York Heart Association class II). Notably, the

size of the newly implanted valve was not smaller (22.7 mm vs 23.1 mm), and the indexed effective orifice area at discharge was greater than 0.85 cm²/m² in all patients, with a significant reduction in postoperative transvalvular gradients (peak gradient from 75.5 ± 29 mm Hg to 27.5 ± 3.7 mm Hg; mean gradient from 39.8 ± 21.6 mm Hg to 14.8 ± 3.3 mm Hg; $P = .031$). Although the sample is limited, these encouraging clinical and hemodynamic results prompt us to suggest that sutureless aortic valve replacement may be considered even for high-risk patients, in particular when the diameter of the previously implanted valve is small, in patients with small body surface area, or in female patients.⁵ At the time of the first implant, selection of the appropriate valve size is crucial in the event of a subsequent valve-in-valve procedure, especially in younger patients. The valve-in-valve technique is a feasible and promising treatment option, which is being performed increasingly in many centers, including our own. So the real question becomes, is it worth treating high-risk patients with this expensive and delicate surgical procedure if no hemodynamic benefit will be obtained in approximately 50% of cases?

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