Letter by Azzalini and Ly Regarding Article, “The Learning Curve for Transradial Percutaneous Coronary Intervention among Operators in the United States: A Study from the National Cardiovascular Data Registry”

To the Editor:

In their article, Hess et al.¹ report on the learning curve (LC) for transradial percutaneous coronary intervention (TR-PCI), using the National Cardiovascular Registry Database. The threshold to overcome this LC is identified at 30 to 50 cases. Moreover, it is concluded that, as operator TR-PCI volume increases, higher risk patients are selected and efficiency increases, while safety is maintained. The authors are to be congratulated for their insightful analysis, which contributes to the body of knowledge on the topic.

However, several observations need to be addressed. Firstly, the importance of access-site crossover in Hess’ population remains unknown, but is likely not less than the 6.6% seen in a population of standard radialists (>60% of TR-PCIs).² From our understanding, the CathPCI Registry does not capture access-site crossover. Thus, documenting procedural success via the initial access site would not have been possible. This implies that failed TR-PCIs were accounted for as transfemoral procedures and were excluded from the analysis, introducing an inherent selection bias that would cause an increased likelihood for TR access procedural success. Such a key confounder was not adjusted for in the provided statistical analysis.

Secondly, TR access failure can occur either solely or due to a combination of factors such as failure to appropriately puncture the artery, to advance guidewires/catheters or due to a lack of support secondary to vessel anatomy.³ Hess et al.¹ seem to have captured only artery, to advance guidewires/catheters or due to a lack of support combination of factors such as failure to appropriately puncture the was not adjusted for in the provided statistical analysis. likelihood for TR access procedural success. Such a key confounder contributes to the body of knowledge on the topic.

In summary, while the findings by Hess et al.¹ contribute to better characterize the TR-PCI LC, their observations should be interpreted in light of low-to-medium complexity interventions, and one should be careful in extrapolating such data to TK-PCI in all-comers, for whom a different, steeper LC likely exists.

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Disclosures

None.

References

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