Response to letter by Dziewierz *et al.* on "Influence of access site choice for cardiac catheterization on risk of adverse neurological events: A systematic review and meta- analysis". Am Heart J 2016;181:107–119

Alex Sirker, Chun Shing Kwok, Mamas Mamas

PII: S0002-8703(17)30032-7
DOI: doi: 10.1016/j.ahj.2017.01.013
Reference: YMHJ 5364

To appear in: *American Heart Journal*

Please cite this article as: Sirker Alex, Kwok Chun Shing, Mamas Mamas, Response to letter by Dziewierz *et al.* on "Influence of access site choice for cardiac catheterization on risk of adverse neurological events: A systematic review and meta- analysis". Am Heart J 2016;181:107–119, *American Heart Journal* (2017), doi: 10.1016/j.ahj.2017.01.013

Response to letter by Dziewierz *et al* on "Influence of access site choice for cardiac catheterization on risk of adverse neurological events: A systematic review and meta- analysis'. Am Heart J 2016;181:107-119.

We would like to thank Dr Dziewierz and colleagues for their kind comments on our recent article in the Journal. We also congratulate them on their excellent work, drawn from the national ORPKI registry in Poland, examining determinants of periprocedural stroke after PCI for acute myocardial infarction [1]. Their large and very contemporary dataset (covering 2014-15) provides further valuable insights.

Their central findings are consistent with those from our meta-analysis, which studied a broader group of patients undergoing cardiac catheterization in elective and non-elective settings. They support the safety of radial access from the perspective of neurological risks.

We note with interest the relationship identified in their work between radial PCI operator volume and periprocedural stroke. Among various potential explanations, one involves the possibility of higher risks for adverse cerebrovascular events among less frequent radial operators, perhaps via longer procedural times or other technical factors. However this specific risk has not been previously reported in association with the transradial learning curve, although the usual caveats regarding rare events remain pertinent in this respect.

Finally, we share the concerns of Dziewierz *et al* regarding the safety of femoral access in an era of increasing default radial access for cardiac catheterization. With this in mind, we recently used the United Kingdom national PCI registry to study whether outcomes with femoral access are significantly different among operators with a higher versus lower volume (or proportion) of femoral access cases. Our findings are presented in a forthcoming publication [2].

Alex Sirker
Chun Shing Kwok
Mamas Mamas
On behalf of the writing group

References

[1] Dziewierz A, Siudak Z, Tokarek T, Rakowski T, Dudek D. Determinants of stroke following percutaneous coronary intervention in acute myocardial infarction. *International Journal of Cardiology.* 2016: 223: 236-238.

[2] Hulme W, Sperrin M, Kontopantelis E, Ratib K, Ludman P, Sirker A, Kinnaird T, Curzen N, Kwok CS, de Belder MA, Nolan J, Mamas MA. Increased radial access is not associated with worse femoral outcomes for PCI in the United Kingdom. *Circ Cardiovasc Interv* 2016 *In press*