Journal Pre-proof

Reply to “A holistic approach to identifying the origins of and investigating predictive factors for type Ib endoleak in endovascular aneurysm repair”

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PII: S1078-5884(23)00655-X

DOI: https://doi.org/10.1016/j.ejvs.2023.08.032

Reference: YEJVS 8916

To appear in: *European Journal of Vascular & Endovascular Surgery*

Received Date: 27 July 2023

Revised Date: 27 July 2023

Accepted Date: 7 August 2023

Please cite this article as: D’Oria M, Zuccon G, Wanhainen A, Reply to “A holistic approach to identifying the origins of and investigating predictive factors for type Ib endoleak in endovascular aneurysm repair” *European Journal of Vascular & Endovascular Surgery* (2023), doi: https://doi.org/10.1016/j.ejvs.2023.08.032.

CORRESPONDENCE

Reply to "A holistic approach to identifying the origins of and investigating predictive factors for type Ib endoleak in endovascular aneurysm repair"

We appreciate the interest from Antoniou and Georgiadis[1] in our scoping review on the incidence, risk factors, and prognostic impact of type 1B endoleaks (1B-EL) following endovascular aortic repair (EVAR).[2] We would like to offer additional insights and explanations into the aims, nature, and significance of our work.

A scoping review is generally conducted with the objective of systematically mapping the existing scientific literature on a specific topic, thereby assessing key concepts and potential gaps.[3,4] Formal protocol registration is not required for scoping reviews, although a comprehensive list of items and checklists was provided (cfr. figure 1, supplementary tables S1 and S2) to improve transparency and reproducibility.

This review scanned the relevant literature to identify studies focusing on 1B-EL following standard EVAR. Notably, the risk factors were not predetermined but derived and reported from all studies included in this review (cfr. supplementary table S3). As pointed out by Antoniou and Georgiadis, the literature exhibited substantial heterogeneity which may reflect the complexity of the real world, wherein research is still ongoing and evolving, primarily relying on the experiences of individual centres. As these observations were noted during the startup of the review, it was decided to pursue a scoping review.

While we agree with Antoniou and Georgiadis that "Vascular specialists should refrain from simplistically focusing on morphological constraints of the iliac arteries alone", we believe it would be naïve not to think of the plausible relationship between anatomy of iliac arteries and the risk for loss of distal sealing, as already well known for the infrarenal aortic neck.[5]

We extend our gratitude to the authors for their proposal to classify the risk factors for 1B-EL to achieve higher homogeneity and better likelihood for meaningful cross comparison of different studies. Indeed, we have proposed a classification scheme (cfr. table 5), which is close to what has been proposed by Antoniou and Georgiadis, thereby reflecting a common landscape of thoughts within the vascular community. However, our proposal as well as the one by the authors, would need to be externally and cross sectionally validated before their use could be implemented into clinical practice.

It should be emphasised that the focus of this review was to present an overview of complex issues around 1B-EL, using the format of a scoping review, without any presumption to derive or assess risk predictive models. Indeed, while risk prediction models can be valuable and are increasingly leveraged in healthcare (also owing to the increasing use of machine learning algorithms), they are complex to develop and may have limitations in terms of sensitivity, specificity, and real world applicability.[6]

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