



Letter to the Editor

## Subclinical atherosclerosis in patients with cyanotic congenital heart disease<sup>☆</sup>



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#### Dear Editor:

We agree with the comprehensive conduct of the study by Julie Bjerre Tarp et al., "Subclinical atherosclerosis in patients with cyanotic congenital heart disease" [1], and the need for further studies to understand the risk of coronary artery disease in patients with cyanotic congenital heart disease (CCHD) [2,3]. However, critical limitations must be addressed:

1. Of the 74 patients included in the study, 74% did not have CCHD. The main concern is the majority of patients classified with CCHD ( $n = 51$ , 69%) either have ventricular septal defect (VSD) or atrial septal defect (ASD). Neither of these defects are CCHD. The authors define CCHD using the paper of Broberg CS et al. [4], which provides the definition of patients with Eisenmenger syndrome. CCHD and Eisenmenger syndrome are not interchangeable. We suggest the authors use the term "adults with Eisenmenger syndrome" if that is the case for patients with VSD or ASD in their paper, and not "patients with CCHD".

2. The vascular pathophysiology of CCHD with normal pulmonary pressures, and systemic desaturation associated with hypoxic preconditioning persisting from the intrauterine environment throughout life or genetic determinants associated with CCHD is different from acquired cyanosis due to pulmonary hypertension in patients with Eisenmenger syndrome [3].
3. The authors conclude increased prevalence of cerebrovascular event (CVE) and an elevated inflammatory state in patients with CCHD may increase risk for the development of atherosclerosis later in life. The presumed CVE in CCHD is likely related to polycythemia, and right-to-left shunting rather than atherosclerosis.

#### Conflict of interest

The authors report no relationships that could be construed as a conflict of interest.

#### References

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<sup>1</sup> This author takes responsibility for all aspects of the reliability and freedom from bias of the data presented and their discussed interpretation.