



## Letter to the Editor

## A pediatric perspective on the TAPSE/PASP ratio in pulmonary arterial hypertension

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on behalf of the European Pediatric Pulmonary Vascular Disease Network

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#### To the Editor,

With interest we read the article by Tello et al. [1] on the tricuspid annular plane systolic (TAPSE)/pulmonary artery systolic pressure (PASP) ratio used for echocardiographic estimation of pulmonary vascular resistance (PVR), pulmonary arterial capacitance, and functional capacity (WHO-FC) in adults with pulmonary arterial hypertension (PAH) [1]. We further agree with Guazzi's editorial and previous work suggesting that the TAPSE/PASP ratio represents an indicator of right ventricular (RV) to pulmonary circulation (PC) coupling [2,3].

Thus, for pediatric cardiologists, the question arises if the TAPSE/PASP ratio also proves useful in pediatric PAH; TAPSE is already widely used and a cornerstone of current recommendations on pediatric multi-variable echocardiography [4]. We recently demonstrated that, in children with PAH, the TAPSE/PASP ratio showed a stronger correlation with NYHA-FC/modified ROSS score than TAPSE alone [5]. Nevertheless, a simply extrapolation from adult TAPSE/PASP ratio reference values to the pediatric age group should be avoided. In children, TAPSE and PASP are development-dependent variables and, even when using age-adjusted TAPSE z-scores, changing normative PASP

values during development make it difficult to build reference values in children [5].

We thank Tello et al. [1] for addressing the need for combined non-invasive echocardiographic variables of RV function and pulmonary blood flow in PAH. We strongly support their notion that the TAPSE/PASP ratio, despite the aforementioned difficulties in creating pediatric reference values, holds the promise to become an integral part of every echocardiographic examination in both, adult and pediatric PAH.

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#### Conflict of interest

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

#### References

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