

## Congenital heart disease, exercise capacity and B-type natriuretic peptide

The study by Trojnaraska et al. [1] is very interesting and adds important information to what we know about adults with congenital heart disease and heart failure.

Heart failure can be considered as an advanced stage of heart disease, and is a significant cause of worldwide mortality and morbidity [2]. It is characterized by a persistent activation of the circadian neurohormonal system [3, 4], endothelial dysfunction [5], exercise intolerance [6–9], high mortality [10] and an impaired quality of life [11].

Trojnaraska et al. [1] studied 265 adult patients with congenital heart disease and found that the exercise capacity of this population was compromised; despite the fact that 78% of the studied patients self-assessed their exercise capacity as satisfactory. Moreover, the B-type natriuretic peptide (BNP) levels were increased and closely correlated with exercise capacity.

Surprisingly, in a sub-analysis, the authors found that lower peak oxygen consumption was observed in patients with corrected tetralogy of Fallot and higher BNP concentration in Ebstein's anomaly. It is well known that peak oxygen consumption [10] and BNP [12] can stratify the heart failure patient's severity. Regarding this sub-analysis, one would expect that the tetralogy of Fallot would have higher BNP concentrations, and Ebstein's anomaly the lowest peak oxygen consumption. It would be interesting if a correlation between peak oxygen consumption and BNP concentration could have been performed to each kind of congenital heart disease.

The study by Trojnaraska et al. [1] leads us to conclude that heart failure in adults with congenital heart disease is under-diagnosed and special attention must be provided from clinicians to these patients to avoid growing numbers succumbing to this syndrome.

### References

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