

This film demonstrates a ___-year-old male patient with severe HF. The cause of heart failure is (diagnosis). The LVEF is ___% on echocardiography. At the resting stage, the SctO_{2rest} is __%, which is lower than the average SctO_{2rest} of the healthy controls ($73.1 \pm 2.8\%$) as presented previously by Chen et al.¹. Before exercise testing, P_{ET}CO_{2rest} is ___ mmHg. MAP_{rest} is ___ mmHg. Baseline blood sampling revealed BNP and Hb levels of ___ pg/mL and ___ g/dL, respectively. The OUES is ____. At peak exercise, SctO₂ is further decreased to __%. Peak $\dot{V}O_2$ is mL/min. Peak work rate is ___watts.

- 1 Chen, Y. J. *et al.* Cerebral desaturation in heart failure: Potential prognostic value and physiologic basis. *PLoS One*. **13** (4), e0196299, (2018).