

# Exercise stress test and oxygen consumption

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# Case 1

## Take home message

- No study has specifically evaluated the sensitivity of exercise testing for early detection of pulmonary hypertension
- A « normal » cardiopulmonary exercise test does not rule out significant pulmonary hypertension
- Caution with the « psychogenic / functional » dyspnea
- Ideally, blood gas analysis (during CPET) is required for the evaluation of unexplained dyspnea
- CPET and 6MWT are physiologically different exercise tests

# Case 2

## Take home message

- Exercise capacity assessment is part of the routine evaluation of pulmonary hypertensive patients.
- Others variables (medical hystory, hemodynamics, echocardiography, biochemical markers, ...) are also important
- Caution with the absolute six-minute walked distance
  - Correction for age, sex, height and body weight, previous physical fitness?
- A clinically significant improvement on treatment remains arbitrary

# Case 3

## Take home message

- Exercise capacity assessment should be part of the routine evaluation of most (not all) pulmonary hypertensive patients
- Exercise testing should be performed with caution in the following patients:
  - NYHA functional class IV
  - History of recent/recurrent syncope or near-syncope
- The risk-benefit ratio of exercise testing must be adequate

# Cases 4 and 5

## Take home message and conclusion

Cardiopulmonary exercise testing may:

- 1) Assess disease severity and prognostic
- 2) Precise exercise capacity
- 3) Guide clinicians in decision making
- 4) Provide information on the different mechanisms related to exercise intolerance
- 5) Be more appropriate than six-minute walk test in NYHA functional class II