

Letter to the Editor

A novel position for postural relief of dyspnea

Uma posição incomum para alívio postural da dispneia

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To the Editor:

Patients with severe chronic airflow obstruction can experience a reduction in the sensation of dyspnea by assuming specific postures.⁽¹⁻³⁾ Leaning forward with the hands on the knees, the so-called “tripod position”, for example, is a well-known posture associated with dyspnea relief.⁽⁴⁾ We recently had the opportunity to meet, in the infirmary of our hospital, a 39-year-old cystic fibrosis inpatient who had adopted a distinct posture for respiratory comfort. He was seated on the bed, with his legs crossed, keeping his trunk straight. His overall positioning was reminiscent of the lotus position used for meditation. According to the patient, adopting this position, immediately after intense exercise, mitigated dyspnea, improved alertness, and prevented dizziness.

The patient had been hospitalized due to an acute episode of bronchiectasis caused by *Pseudomonas aeruginosa* infection. Spirometric results were as follows: FVC, 2.39 L (76% of predicted); FEV₁, 1.34 L (50.6% of predicted); and FEV₁/FVC ratio, 56.1%. During a period of clinical stabilization, arterial blood gas analysis revealed a pH of 7.43, a PaO₂ of 66 mmHg, and a PaCO₂ of 37 mmHg, on room air. In order to investigate the mechanisms related to the symptomatic improvement, we decided to measure physiological parameters with the patient in three different positions: standing; seated normally on the side of the bed; and seated in the lotus-like position on the bed. Measurements were taken 5 min after the patient had assumed each position.

As can be seen in Figure 1, the lotus position appeared to have several advantages over the standing position, increasing SpO₂ (93% vs. 97%) and decreasing HR (118 bpm vs. 112 bpm), as well as increasing diastolic blood pressure and decreasing systolic blood pressure (130/70 mmHg vs. 110/80 mmHg). In addition, MIP and MEP, measured at the mouth, were lower when the patient was seated in the lotus-like position than when he was standing, although FEV₁ and RR remained comparable (1.35 L vs. 1.38 L and 32 breaths/min vs. 30 breaths/min, respectively). In addition, FVC was higher for the lotus-like position than for the standing position (2.57 L vs. 2.45 L).

We believe that the symptomatic improvement reported by this patient is related to hemodynamic changes, secondary to the increase in venous return to the thorax, as has been previously observed in children with cyanotic heart defects.⁽⁵⁾ In addition, the improved FVC might be related to the more erect position of the vertebral column. Simultaneous improvements in lung perfusion and ventilation would explain the increase in SpO₂. These changes would be sufficient to improve the oxygenation of various tissues, including brain tissue.

Although adopting a lotus-like position could be problematic for some patients with COPD, these clinical findings warrant further investigation. In the meantime, the lotus-like position could be taught as a potential aid to increase respiratory comfort in selected patients with chronic lung diseases.

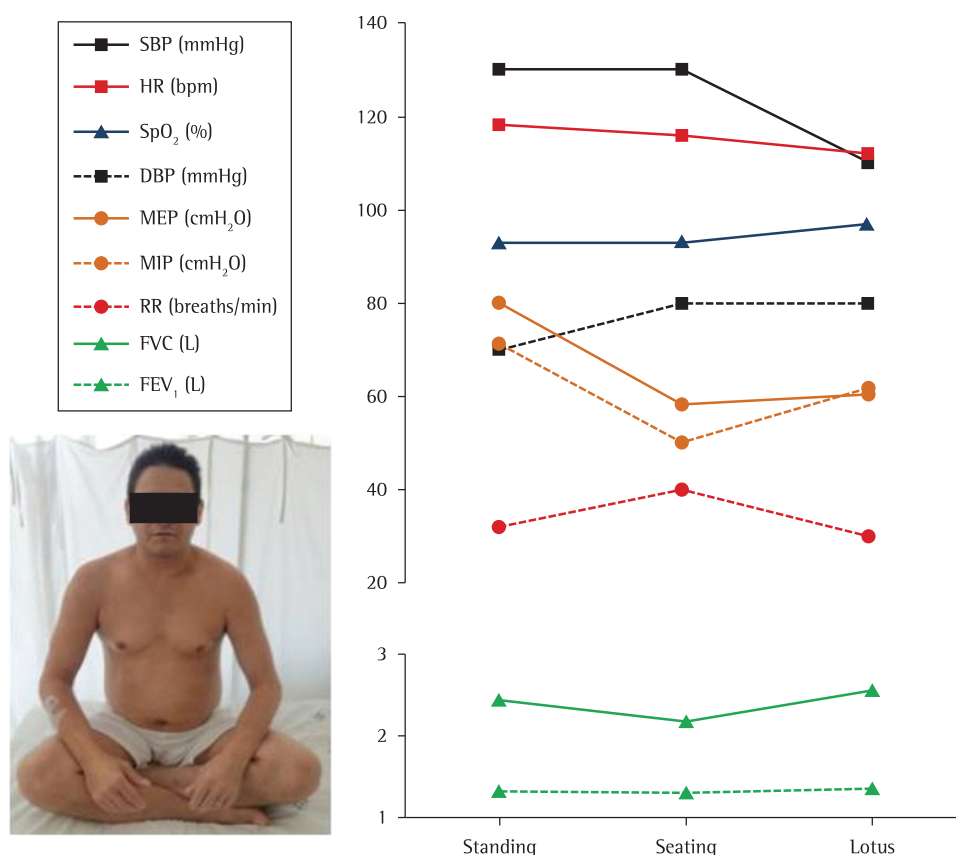


Figure 1 – Physiological measurements obtained for each of the three positions studied. SBP: systolic blood pressure; and DBP: diastolic blood pressure.

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