

VENTILATORY PATTERNS IN PATIENTS WITH A PANIC DISORDER

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Background: In the patients with panic disorders (PD) the most common somatic symptoms are arrhythmia and dyspnea. It is presumed that in PD patients dyspnea results from incorrectly perceived lack of available air.

Aim: Assessment of ventilatory parameters in patients with panic disorder, in whom dyspnea is the most common somatic symptom.

Materials & methods: Thirty-five patients with PD and 60 age- and sex-matched healthy controls entered the study. Ventilatory pattern (Pneumo, abcMed, Poland), together with SaO₂ in pulse oxymetry and dyspnea according to Borg scale (BS) were estimated in each of them.

Results: In the PD group mean level of dyspnea was 5.15±0.62 BS points, while in controls no dyspnea was reported (0 BS points). As expected, SaO₂ was within normal ranges in both groups: 95±2.84% vs. 98.05±0.81, in PD and controls, respectively. Statistically significant differences (p<0.001 for all the compared variables) were found in spirometry measurements between the two groups. Mean values, expressed as percentage of predicted value, were: FEV₁ 51.07±12.06% vs. 101.68±5.5%, VC 85.98±15.54% vs. 104.37±9.03%, MEF₇₅ 42.47±14.6% vs. 104.9±13.34%, Tiffenau index 63.9±18.34% vs. 100.15±8.33% and pseudo-Tiffenau index 71.13±21.38% vs. 102.63±6.66% for PD and controls, respectively. Similar significance showed differences in indexes based on maximal and peak values of inspiratory and expiratory flows: MIF₅₀/MEF₅₀ 0.91±0.4 vs. 1.41±0.08, PIF/PEF 0.81±0.33 vs. 1.1±0.06, FEV₁/PEF 0.6±0.15 vs. 0.47±0.04 and PEF/MEF₅₀ 0.71±0.19 vs. 1.59 ± 0.16. There were statistically significant reversed correlations (p<0,001) between a level of reported dyspnea and spirometry patterns in PD patients.

Conclusions: According to the "false suffocation alarm" theory in panic disorders patients, dyspnea results from incorrectly perceived lack of air and false signaling in the central nervous system. We have demonstrated in those patients moderately severe bronchoconstriction, pronounced in upper respiratory tract. Moreover, the level of reported dyspnea depends on intensity of airway constriction.

Thus we conclude that in panic disorders dyspnea is a result of somatic functional changes in the airways and not only an effect of perception disorders.