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SMOKING AND RESPIRATORY IRREGULARITY AT REST IN PATIENTS WITH PANIC DISORDER

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Objective: In the past decades different evidences suggested a relationship between Panic Disorder (PD) and respiration, among which the presence of different respiratory irregularities at rest in PD patients. It has been hypothesized that PD could be characterized by a dysfunction of those areas involved in the central control of respiration. The aim of this study was to unravel possible differences in the respiratory patterns at rest between PD patients and healthy controls (HC). Moreover we investigate possible mechanisms linking smoking to respiration.

Methods: Respiratory physiology has been assessed in 32 PD patients with Agoraphobia and 24 HC, for 15 consecutive minutes. Mean and standard deviation of respiratory rate (RR), tidal volume (TV), minute ventilation (VE), and end-tidal CO₂ (pCO₂) have been assessed.

Results: No significant difference between the two groups in all physiological indexes has been found. A significant diagnosis-by-smoking interaction has been found for RR and VT mean value ($p < 0,05$), that were significantly higher in non-smokers PD patients compared to non-smokers HC.

Conclusion: Results seem to suggest the existence of a peculiar equilibrium condition in PD patients. Respiratory system in PD responds to nicotine assumption differently from that of the HC. These data seem to be consistent with the hypothesis of a central homeostatic dysfunction in PD.

Further studies are needed, that take in account age of onset of smoking and number of cigarettes smoked daily. Moreover investigation on the Homeostatic Brain' functioning should need a more integrated consideration of the cardiac, respiratory and balance systems together.