Conditioned PLB as a behavioral management strategy to manage asthma

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Immune response in asthma has a specific signalling pathway that starts with T cells activation and ends in a fully expressed asthma specific inflammation. To suppress this immune response big pharma has been designing drugs to target various points in its pathway, mainly T cells, IL cells and TLR cells. Unfortunately such an suppressive intervention also affects patient's healthy immune response that may result in reduced overall immunity. Pursed Lip Breathing (PLB) is a behavioral intervention that is already recommended during asthma attacks and breathing difficulties by most asthma associations and specialist groups 2, 3. Conditioned PLB aims to condition patients to create a behavior that suppresses such immune responses before escalating into an asthma attack. Such behavioral intervention has many benefits against pharmaceutical interventions as it does not distort body's natural immunological pathways. Additionally it Increases the volume of inhaled and exhaled air (vital capacity), it helps all of the stale air to escape from lungs. It lengthens the time for which the airways remain open and thus less effort is required for breathing. It leads to better alveolar exchange of gases and thus more oxygen can enter the blood stream and more carbon dioxide can exit. It relaxes the body by increasing the parasympathetic nervous system.

Biography

Matevz Leskovsek, PhD, is a founder and managing director of Breathinglabs.com, a company that produces human computer interfaces for breathing exercises, breathing games, and breathing entertainment. Dr. Leskovsek specializes in biofeedback, cardio-respiratory interaction, and neurology/brain research. He has led Society of Young researchers of Slovenia through fund raising and organization of an annual Mentor of the year award, that has been, among others, praised by the leading scientific journal Nature (Slovenian Scientists Reward Mentors, Nature, 09th June 2011).

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