Dynamic Chiropractic

DIAGNOSIS & DIAGNOSTIC EQUIP

Hyperventilation Syndrome

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Hyperventilation syndrome is one of the most common causes of dizziness in the general population, accounting for up to 25 percent of dizziness complaints.[1,2,7] Hyperventilation syndrome may present a diagnostic challenge to the chiropractic physician because of the diverse symptomatology associated with this disorder. One of the most valuable clues to the diagnosis of hyperventilation syndrome is the simultaneous occurrence of puzzling combinations of diverse symptoms (cardiovascular, neurological, respiratory, gastrointestinal, musculoskeletal, and psychological) in association with ill-defined dizziness. Dizziness attacks are caused by overbreathing which is triggered by anxiety or related emotional disturbance.

Complicating this scenario is the fact that the patient may not be aware of their overbreathing. In contrast to the vertiginous sensations associated with peripheral vestibulopathy, hyperventilation syndrome patients usually characterize their symptoms in vague terms such as lightheadedness, floating, or unsteadiness which may be episodic or constant. Patients with constant symptoms give extremely vague descriptions of their dizziness while patients with episodic symptoms may go to the emergency room often and may be hospitalized for apparently severe symptoms.

The most commonly noted symptoms of hyperventilation syndrome are an ill-defined lightheadedness associated with perioral and digital paresthesias, tightness in the chest, a lump in the throat, sweating, trembling, palpitations, and possible ringing in the ears.[1,2,4,5,6]

As previously mentioned, hyperventilation syndrome may produce symptoms in many different systems in puzzling combinations. Cardiovascular symptoms such as tachycardia, precordial pain, and Raynaud's phenomenon may be associated with hyperventilation syndrome. Neurological symptoms associated with this disorder in addition to those previously mentioned may include unsteadiness, impaired memory or concentration, and slurred speech. Patients may also manifest general symptoms such as fatigue, diffuse weakness, insomnia, or nightmares. Respiratory symptoms associated with hyperventilation syndrome may include shortness of breath, chest pain, sighing respirations, and yawning. Gastrointestinal complaints may include dryness of the mouth, dysphagia, bloating, belching, flatulence, and abdominal pain. Hyperventilation syndrome may be due to hypocapnia, alkalosis, increased cerebral vasoconstiction, decreased cerebral blood flow, and increased nerve sensitivity.[2,6]

Diagnosis of hyperventilation syndrome is accomplished by having the patient duplicate the attacks by breathing heavily for two minutes. The duplication of the patient's symptoms by hyperventilation is the key to treatment of this condition because the patient must be convinced of the diagnosis. Acute attacks may be terminated by having the patient breathe into a paper bag to elevate carbondioxide levels in the blood.

Breathing exercises may be employed to control symptoms on a long-term basis. The patient must be instructed to practice five minutes of slow, controlled, voluntary, and regular breathing two times per day for two weeks. The patient must sit before a clock with a second hand and breathe less than five times per minute for five minutes, slowly, in and out, without holding the breath or

breathing too deeply. It must be stressed that these exercises only control the symptoms of hyperventilation and do not control the cause of the disorder. Serious underlying psychiatric disorders must be recognized such as anxiety neuroses, depression, hypochnodriasis, hysteria, or psychosis. Due to the complexity of this disorder, a referral to a clinical psychologist may be in order and underlying respiratory pathology must be ruled out.

References

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