

LETTERS

Gastroesophageal reflux disease, temporomandibular disorders and dysfunctional breathing

In their study, Li and colleagues found that gastroesophageal reflux disease (GERD) was associated with temporomandibular disorders (TMDs), mediated to a certain extent by somatization, anxiety and poor sleep.¹ However, the authors did not describe a contributory pathophysiological mechanism, hyperventilation,² or assessment of breathing pattern and posture.

Relaxed diaphragmatic breathing appears to reduce the severity of GERD.³ During inspiration, the crural diaphragm provides an additional extrinsic sphincter independent of the lower esophageal sphincter.³ As assessed by pH-metry, quality-of-life scores and proton pump inhibitor usage, relaxed diaphragmatic breathing reduces GERD severity.⁴ The teaching of relaxation skills and coping strategies is an effective, proven therapy for GERD.^{3,4}

A consideration of breathing patterns potentially explains how biomechanical factors associated with psychosocial influences might contribute to pathophysiological changes in the temporomandibular joint.⁵ Patients with a dysfunctional breathing pattern typically have rounded shoulders and a forward head posture,⁶ which is implicated in TMDs.⁷ A forward head posture is believed to alter occlusion, lead to increased posterior tooth contact and increased temporomandibular joint compression: all anatomic changes emphasized in TMDs.⁶

The restoration of diaphragmatic breathing is an important musculoskeletal and psychological therapy used in helping patients with TMDs.^{6,8} Relaxed diaphragmatic breathing techniques also have an important role in managing anxiety⁹ and improving sleep quality.¹⁰

An assessment of a patient's posture and breathing pattern and, when necessary, instruction in relaxed diaphragmatic breathing may help people with these pathologies. Future research might also consider use of the Nijmegen questionnaire.²

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