Qigong, parasympathetic function and fibromyalgia

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Qigong, which has a long history in China, is currently considered as “meditative movement” or “movement-based embodied contemplative practice” and is being explored for its health benefits in diverse areas (e.g. fibromyalgia, chronic fatigue syndrome). In traditional theory, benefits result from the removal of blockages and promotion of the free flow of qi (vital energy) within the energy system. Contemporary theories involve regulation of central pathways, neuroendocrine modulation, and enhanced sympatho-vagal balance. Fibromyalgia is a chronic pain condition with multiple comorbidities (e.g. sleep and mood disturbances), in which impaired parasympathetic nervous system activity is prominent. The vagus nerve is a major component of the parasympathetic nervous system, and activity contributes to homeostatic cardiovascular regulation; it also can modulate pain, inflammation and immune function. Several observations support the notion that health benefits of qigong in fibromyalgia may be due to improved parasympathetic function. Direct vagal nerve stimulation (using implanted electrodes) has been shown to improve symptoms of fibromyalgia. Qigong practice has been shown to alter heart rate variability parameters in a manner consistent with enhanced parasympathetic function in healthy adults and in the elderly. Other treatments useful for treating fibromyalgia (exercise, Tai Chi, hydrotherapy) have been demonstrated to improve parasympathetic activity. It is hypothesized: that a prominent physiological transducer for the health benefits of qigong involves increased parasympathetic activity and; that targeting a functional system that is perturbed has the potential to produce benefits in multiple health areas. This hypothesis is amenable to direct testing.

Biography
Jana Sawynok has a PhD in Pharmacology, and has been particularly interested in developing novel analgesics (adenosine-based therapeutics, topical analgesics). Since 2000, she has also been interested in Complementary and Alternative Medicine, with applications in chronic pain. She has published 180 papers in reputed journals, including 8 publications on qigong. She currently supervises (in collaboration with Mary Lynch, MD) medical students conducting pragmatic observational trials of qigong in the context of self-care at a tertiary pain care setting.

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