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EDITORIAL

Reduced Aerobic Capacity in Fibromyalgia Syndrome

The lead article for this issue of the *Journal of Musculoskeletal Pain* comes from Taipei, Taiwan (1). The authors suspected a decrease in the aerobic capacity of women with primary fibromyalgia syndrome [FMS] and pursued that question because there has been controversy about this issue. They tested their hypothesis by studying Chinese women with FMS, whom they compared with demographically matched healthy normal control [HNC] Chinese women. Their methods involved open-circuit spirometry combined with bicycle ergometry when the participant was seated in an upright position. The aerobic capacity of HNC Chinese women was about 30 percent lower than has been found with Western women, but the case control design of their study was maintained by recruiting only matching Chinese women as HNC. The authors measured grip strength, tender point index, Fibromyalgia Impact Questionnaire, and the Health Assessment Questionnaire as comparison variables and offered insight through correlation of these measures with the aerobic capacities of the experimental groups. Some of the women in each of the groups were regular exercisers, so those subgroups were analyzed separately. The findings are unequivocal and require explanation. The authors considered group-related differences in pain, fatigue, and conditioning. Hopefully, this group of investigators will maintain their interest in this phenomenon and will further pursue responsible cause-to-effect mechanisms.

Investigators from Louvain-La-Neuve, Godinne, and Brussels, Belguim (2) have collaborated to evaluate behavioral and representational components of "hyperactivity" in FMS. Their methodology involved recruiting FMS patients, their significant others, and a demographically matched HNC group. The approach for the FMS patients was to use self-assessment in determining "habitual action-proneness" before the development of FMS symptoms and to compare with that of HNC's based on a period of past five years. The significant others were asked to complete the same questionnaire to document what they knew about the patient's activity before developing FMS symptoms. Another self-report instrument allowed the FMS patients and significant others to document the FMS patient's current activity. This design allowed the investigators to compare the physical activities of FMS patients before and after the onset of symptomatic FMS with those of representative HNCs. The results confirm earlier findings relative to FMS physical activity before the development of the illness but this study adds to the field several new insights.

In an attempt to establish the optimal conditions for administration of therapeutic laser treatment for myofascial pain syndrome, investigators from Taoyuan and Taichung, Taiwan (3) conducted an investigation with rabbits exhibiting skeletal muscle trigger spots. The trigger spot on the symptomatic side was treated

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daily with laser at either 27 J/cm^2 or 72 J/cm^2, while the contralateral side was subjected to sham treatment. Electrical activity of the trigger spot was assessed by measuring endplate noise. The findings were somewhat surprising and would likely lead to additional experiments.

Investigators from Istanbul, Turkey (4) report their assessment of risk associated with administration of high-power pain threshold ultrasound for human patients with MPS. They used rats as the experimental model and applied intensities of ultrasound ranging from 0.5 watt/cm^2 to 1.5 watt/cm^2. After the intervention, muscle, peripheral nerve, spinal cord, and bone were examined pathologically for signs of tissue injury. This is an important Phase 1 trial, conducted after a lot of human therapy has already transpired.

This issue of the *JMP* also offers four very useful case reports. The first is from Liége, Belgium (5). When a clinician makes the diagnosis of hypermobility syndrome on a patient with chronic musculoskeletal pain, the hypermobility is often believed to be the cause of the pain. The problem, then, is to identify a treatment that might prove beneficial. The underlying condition can be benign joint hypermobility syndrome [see review article in this issue], Ehlers–Danlos syndrome, Marfan syndrome, or osteogenesis imperfect. The authors present three exemplary cases and discuss the interventions that helped to reduce the patients' pain.

The second case report comes from Ankara, Turkey (6). Radiculopathy is likely to be the first diagnostic consideration when a patient presents with leg pain and foot drop but these authors describe a case in which the cause was piriformis muscle syndrome with compression of the sciatic nerve in the posterior pelvis. Their therapy was rapidly effective. The reader would like to know how they made the diagnosis and what was that successful intervention?

The third case report comes from a different institution in Ankara, Turkey (7). The authors present the anatomy and electromyographic findings of an "all ulnar hand" in which an anomalous ulnar nerve innervates the thenar muscles of the hand. These muscles are normally innervated by the median nerve, so atrophy of the thenar muscles is expected in patients with severe or chronic carpal tunnel syndrome. With the anomalous ulnar nerve, the examination is confusing because the anticipated thenar atrophy is not present.

The final case report comes from Compo Grande, Brazil (8). The medical and dental literature has documented the apparent role of bisphosphonates in the development of jaw pain with osteonecrosis (9, 10). In 2004, Kos, et al. (11) reported the results of a pilot study involving another jawbone pain problem called fibrodysplasia ossificans, which responded to therapy with a bisphosphonate. The authors from Brazil report two additional cases with fibrodysplasia ossificans who responded to treatment with ascorbic acid and intravenous disodium clodronate. They then describe what is known about the genetics and the pathogenesis of this disorder.

Three collaborators from Aydin, Turkey (12) provide a review of the benign joint hypermobility syndrome. Their article provides information about genetics, diagnosis, and management of this familial disorder, and includes an extensive list of references.

Readers of the *JMP* are again provided columns with summaries of the important developments in soft tissue pain published in other medical journals. These features not only provide a comprehensive review of what is new in the field but also allow readers to benefit from illuminating commentaries by experts from two continents.

Two letters to the editor, one from Hiroshima, Japan (13) and another from Warsaw, Poland (14), provide viewpoints that are of importance to health care providers for patients with pain. Responses of agreement or dissent are invited.

As always, readers of JMP are invited to submit original manuscripts for blinded peer review, case reports of general interest, research ideas to promote further investigation, and letters to keep us all informed. The *JMP* editorial office frequently receives relevant books to be evaluated by and for the benefit of our readers. Book reviewers are allowed to keep the featured book after the evaluation report is completed. If you would be interested in being a book reviewer for the *JMP*, please communicate that to the editor.

Potential authors of contributions to the *JMP* should note that submissions and all communications between the authors and the *JMP* staff are to be accomplished online. Visit http://mc.manuscriptcentral.com/wjmp for more details.

The clear mandate of the International MYOPAIN Society [IMS], for which the *JMP* is the

official journal, is to perpetuate the international meeting that is currently held every three years. In 2007, there was a very successful International MYOPAIN meeting in Washington, DC, USA. The manuscripts from the invited speakers were published in *JMP*, volume 16(1, 2) as a combined special symposium issue. Those IMS members who were unable to attend the meeting and those who wish to jog their memory regarding some aspects of a given presentation would like to refer to their copies of that issue. The next international meeting is scheduled for October 3–7, 2010 in Toledo, Spain. That city is renowned for its quaint beauty and for its many paintings by El Greco, who lived in Toledo during the middle of the European renaissance. The IMS website www.myopain.com will offer details.

Declaration of interest: The author reports no conflict of interest. The author alone is responsible for the content and writing of this paper.

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The Editor