Setting the Standard in Health & Disability Management

FIBROMYALGIA:

Is it all in the patient's head?

Doctors are often at a loss as to how to manage patients who complain of being constantly tired and in pain. Symptoms are so variable from patient to patient that a diagnosis of fibromyalgia does not immediately spring to a physician's mind. Depending on the specific symptoms which actually bring the patient to the medical office, doctors may at first feel they are facing anything from arthritis and migraine to depression or irritable bowel.

Fibromyalgia is not a new condition or syndrome. It was first described as early as 1816 by surgeon, William Balfour at the University of Edinburgh. In the past, it had been referred to as soft tissue rheumatism, fibrositis, and non articular rheumatism.

Some doctors will dismiss the diagnosis of fibromyalgia because it is based on self-reporting of symptoms. There are no objective findings to speak of, or diagnostic tests which would legitimize the condition. Other doctors accept the diagnosis, but find these individuals difficult to manage, because they are unable to make them feel better and because of the demands on the doctor's time and ability.

Critics of the fibromyalgia construct, state that those labelled with fibromyalgia are distressed individuals whose ability to cope is exhausted, find their lives to be unsatisfactory, and feel the need to describe this. Some focus on the psychiatric issues around fibromyalgia suggesting that compensation issues themselves may be determinants of the severity of symptoms.

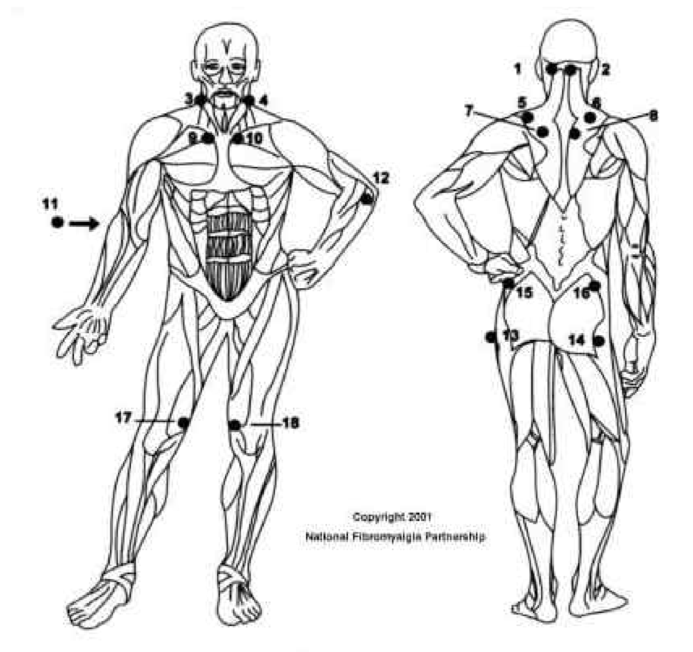
There is evidence for the interaction of physical, psychological, and social factors in fibromyalgia and in fact in the full range of pain syndromes.

According to the Arthritis Society, fibromyalgia affects approximately 3 in every 100 Canadians. There are approximately 900,000 people in this country who suffer from fibromyalgia. In Ontario alone there are 175,000 people affected. Women are four to five times as likely to develop fibromyalgia as are men. The incidence increases with age, occurring in people over 50 with greater frequency.

What is it and what causes it?
Fibromyalgia is essentially pain in the fibrous or soft tissues of the body. These soft tissues include tendons, muscles, ligaments, synovial membranes, cartilage and joint capsules. It is a chronic non degenerative, non progressive, non inflammatory systemic pain disorder, of unknown etiology.

Fibromyalgia is characterized by widespread aches and pains, stiffness, general fatigue, and extensively distributed areas of tenderness, which are referred to as tender points. It is associated with non restorative sleep.

The diagnostic criteria must include a history of widespread pain, presence of pain in all four quadrants of the body, as well as in the axial skeleton on a more or less continuous basis for at least 3 months, and pain in 11 of 18 tender point sites on digital palpation. This diagram highlights the 18 tender point locations:



American College of Rheumatology 1990

The exact cause of fibromyalgia is unknown. It may lie dormant until triggered, in those genetically predisposed, by an infection such as a virus, injury or trauma, other illness, emotional trauma or stress, or sleep disturbance. It is closely related to chronic fatigue syndrome, irritable bowel syndrome, and migraines. It may be associated with changes in muscle metabolism, such as decreased blood flow, causing fatigue and decreased strength. Theories pertaining to alterations in neurotransmitter regulation, especially serotonin, nor-

epinephrine, and substance P, immune system functions, sleep physiology, and hormonal control are currently being investigated.

A current hypothesis suggests that fibromyalgia represents a sensory amplification syndrome. Pain is not caused by damage or inflammation in the periphery but rather is associated with a central defect in pain processing. The response to real pain stimuli is magnified causing pain to increase. Patients may be sensitive to smells, sounds, lights, odours, pressure, temperature fluctuations and vibrations and may interpret touch, light and sound as pain. Nerve endings as well as the autonomic nervous system are sensitized.

Ongoing medical investigative research has identified the following:

- Low Serotonin in the cerebrospinal fluid (CSF) obtained via lumbar puncture
- High Nerve Growth Factor (NGF) in CSF. This may be indicative of pain being neurogenic in nature as nerves are attempting to regrow or repair
- High Substance P (Pain) in CSF
- High levels of ACTH (Adrenocorticotropic Hormone) in the morning with low Cortisol due to non responding adrenal glands. The normal pattern is high ACTH and high Cortisol in the morning due to stress of waking up.
- Low testosterone

How is it treated?

Treatment continues to be controversial as new research continues to bring to the forefront new findings and medical approaches to biochemical management. As there are no autoimmune components which have as yet been identified, it is interesting that rheumatology continues to be the primary discipline managing this condition. As pain is considered to be nociceptive and neuropathic, ongoing management by a neurologist may be an appropriate course of action.

Treatment for fibromyalgia includes medications, sleep hygiene, exercise, support and education. Alternative therapies have also shown to be beneficial in some instances.

Medications:

Serotonin Reuptake Inhibitors (SSRIs) are often prescribed as serotonin has been linked to sleep, pain perception, headaches, and mood disorders. Tricyclic anti-depressants such as Amitriptyline, and Nortriptyline are often prescribed for bedtime

use as they have been shown to help with sleep, pain management, and mood. Anticonvulsants such as Neurontin impact neuropathic pain. While NSAIDs are good for occasional pain relief, regular long term use is questionable. Rebound pain has been implicated in long term high dose NSAID use. Narcotics and hypnotics are not considered appropriate for fibromyalgia management.

Sleep hygiene:
Regular sleep hours with adequate amount of sleep is recommended. Individuals with fibromyalgia are often sensitive to time changes or staying up even one hour longer than normal. Shift workers in particular experience difficulties with maintaining good sleep hygiene. Foods, beverages and drugs that might impair sleep should be monitored. Any co-existing sleep disorders such as obstructive sleep apnea should be investigated and addressed.

Exercise:
Daily gentle aerobic exercise and stretching is recommended. Exercise appears to be of value due to a direct hormonal effect on pain and sleep rather than through muscle conditioning. Suggestions for exercise include walking, aquatherapy, bicycling and gentle aerobic dance. Jogging, vigorous aerobics, and weight lifting are considered to be too strenuous. Physiotherapy may be indicated for stretching, postural education, and TENS application.

Education:
It is important for the fibromyalgia sufferer to find a physician who is knowledgeable and interested in managing this disorder. Individuals need advice in pacing and scheduling of daily activities and may benefit from Occupational Therapy intervention in energy conservation techniques. Medical follow-up should occur on a regular basis to review sleep, exercise and medications. Psychological counselling may be of value in assisting individuals with lifestyle adjustments to chronic illness.

Alternative therapies:
There is anecdotal evidence of some success in the use of herbal supplements. As most herbal supplements have not undergone rigorous placebo controlled double blind studies, it is uncertain whether reports of success are due to a placebo effect. Chiropractic treatment may be helpful for relief of nociceptive pain but does not address neuropathic pain. Acupuncture may be helpful in relieving stress, pain, and assisting with sleep patterns.

Massage therapy may help reduce pain and stiffness and maintain a relaxed state of trigger points during trigger point injection therapy. Timeline for therapy would be dependent upon trigger point injection therapy schedule and response. Diet modifications include avoidance of alcohol, caffeine and other stimulants. An increase in consumption of foods high in omega 3 fatty acids (i.e. flax, fish, nuts, berries, seeds) may help to decrease general inflammation as a result of a decrease in prostaglandin production.

As fibromyalgia is chronic in nature, occasional flare ups will occur which warrant increased medical and/or home support services during that time. With treatment, the majority of those who were previously working should be able to return to work, although some may need to change jobs or get off shift work. Ideally, following confirmation of fibromyalgia diagnosis and subsequent titration of an appropriate medication regimen, it would be reasonable to see significant improvement of fibromyalgia symptoms within 6-8 weeks. Timelines for other forms of therapy are difficult to anticipate and need to be considered on a case by case basis. Some individuals who respond poorly to treatment may require attendance in a pain management program.

For information on how Nancy Haston & Associates may be of assistance, please contact us at 1-800-465-1614 or email to rehab@nancyhaston.com.

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