DIAGNOSTIC CRITERIA FOR FIBROMYALGIA

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The currently used criteria for diagnosing fibromyalgia were established by the American College of Rheumatology and are as follows:

1. A history of chronic widespread pain in all 4 quadrants of the body including the axial skeleton ("Pain all over").....must be bilateral, above and below the waist, involving both the trunk and extremities
2. Pain occurs for at least 3 months
3. 11 out of 18 positive tender points on physical exam.
4. These criteria give a sensitivity of 88.4% and specificity of 81.1%

Tender Points: "the Sed Rate for Distress"

1. Nine paired anatomic sites where 4kg of pressure (enough to blanch the examiners thumbnail) elicit pain
2. The sites of tender points are as follows:
    a. Sub-occipital muscle insertion points
    b. Anterior aspects of intertransverse spaces at C5-7
    c. Midpoint of upper border of the trapezius muscle
    d. Origin of the supraspinatus muscle
    e. Superolateral aspect of second costochondral junction
    f. 2 cm distal to lateral epicondyles of the elbow
    g. Upper outer quadrant of buttocks
    h. Posterior greater trochanter
    i. Medial fat pad of the knee
3. There may be no inherent abnormality at tender points per se. Rather, fibromyalgia patients may have increased sensitivity to pain throughout the body. See below.
4. Tender points are linearly related to assessment scales of fibromyalgia and distress
5. Some clinicians use dolorimetry (using a pressure gauge) to measure pressure pain threshold, but there is less correlation with this method than tender point analysis for fibromyalgia

Characteristics of Pain:

1. Widespread or multi-focal
2. Pain waxes and wanes
3. Pain is more migratory than that associated with inflammation
4. Pain and/or paresthesias follow a non-dermatomal pattern

Characteristics of the Patient:

1. Overall incidence is 2% of population
2. Up to 7 times more common in females
3. More common in older people, usually diagnosed in 50's
4. Muscle stiffness often accompanies pain
5. Poor response to pharmacologic treatment (non-narcotic analgesics, antidepressants)

Common Concurrent Signs and Symptoms:

1. Fatigue
2. Sleep disturbances/non-restorative sleep
3. Memory and concentration difficulties
4. Migraine headaches, TMJ syndrome, Irritable Bowel Syndrome

5. Mood disorders
6. Hypersensitivity to sensory input….light, touch, smell, heat/cold intolerance
7. Fluctuation in weight
8. Subjective weakness
9. Increased allergic responses

Possible Etiologic Factors:

1. Genetic predisposition + environmental exposure…..studies show familial aggregation
2. Physical trauma (especially to axial skeleton)
3. Infection (especially parvovirus, Hep C)
4. Emotional distress….increased incidence of mood disorders, childhood abuse
5. Endocrine disorders (especially hypothyroidism)
6. Immune stimulation, drug or chemical exposure
7. Abnormalities of Autonomic and Neuroendocrine systems
8. Decreased activity of descending anti-nociceptive pathways (locus ceruleus to spinal cord) resulting in increased pain transmission
9. Altered blood flow in CNS areas involved in pain transmission (i.e. Caudate Nucleus)
10. Increased Substance P in CSF (pro-nociceptive peptide)…may be a marker of decreased pain threshold
11. Decreased levels of 3-methoxy-4-hydroxyphenethylene…a metabolite of norepinephrine. Note that NE has central anti-nociceptive activity.

References:

1. Wolfe F., et al., The American College of Rheumatology 1990 Criteria for the Classification of Fibromyalgia. Arthritis & Rheumatism. 33(2): 160-72, 1990 Feb
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3. Puttick Michael P.E., and Esdaile John M., Evaluation of the Patient with Pain All Over. Canadian Medical Association Journal. 164 (2): 223-227, Jan 2001.