CME PSYCHCAST™

CLINICAL CASE UPDATE IN FIBROMYALGIA MANAGEMENT

FIBROMYALGIA SYNDROME: *DIAGNOSIS AND COMORBIDITIES*

FACULTY

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A related Expert Panel Supplement was published in ***CNS Spectrums*** [*CNS Spectr* 14:10 (Suppl 8)] and ***Primary Psychiatry*** [*Primary Psychiatry* 16:10 (Suppl 6)].

CME .25

ABSTRACT

Fibromyalgia (FM) syndrome is a common clinical disorder characterized by severe widespread soft-tissue pain, chronicity, and allodynia. Diagnosed by chronic widespread body pain and unusual tenderness in response to digital pressure at anatomically identified soft tissue sites, FM is increasingly being recognized as a central nervous system disorder. FM patients commonly suffer from insomnia and depression, as well as other comorbidities that complicate the diagnosis, such as anxiety, fatigue, headaches, cognitive impairment, and stress intolerance. Important differential diagnoses include the various rheumatological disorders as well as sleep disorders. Because the presentation of FM is heterogeneous, the goal of treatment is an individualized approach that considers the severity of the patient's pain, the presence of other symptoms and comorbidities or stressors, and the degree of functional impairment. New pharmacologic treatments approved by the Food and Drug Administration offer important options to FM patients, and are expected to improve both diagnosis and treatment of FM. In most cases, the management of patients with FM involves both pharmacologic and nonpharmacologic treatments.

In this Expert Review PsychCast™, Benjamin H. Natelson, MD, neurologist, outlines diagnostic criteria for FM as well as the differential diagnosis of various comorbid conditions.

This activity is jointly sponsored by the Mount Sinai School of Medicine and MBL Communications, Inc.

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Activity Review Information

The activity content has been peer-reviewed and approved by **Stelian Serban, MD**.

Review Date: September 2, 2009.

Faculty Affiliation

Benjamin H. Natelson, MD, is professor of neurology at the Albert Einstein College of Medicine and director of the Pain and Fatigue Study Center at Beth Israel Medical Center, both in New York.

Faculty Disclosure Policy Statement

It is the policy of the Mount Sinai School of Medicine to ensure objectivity, balance, independence, transparency, and scientific rigor in all CME-sponsored educational activities. All faculty participating in the planning or implementation of a sponsored activity are expected to disclose to the audience any relevant financial relationships and to assist in resolving any conflict of interest that may arise from the relationship. Presenters must also make a meaningful disclosure to the audience of their discussions of unlabeled or unapproved drugs or devices. This information will be available as part of the course material.

Faculty Disclosures

Dr. Natelson reports no affiliation with or financial interest in any organization that may pose a conflict of interest.

CME Course Director James C.-Y. Chou, MD, is associate professor of psychiatry at Mount Sinai School of Medicine in New York City. Dr. Chou has received honoraria from AstraZeneca, Bristol-Myers Squibb, Eli Lilly, GlaxoSmithKline, Janssen, and Pfizer.

Dr. Serban is assistant professor of anesthesiology and director of acute and chronic inpatient pain service in the Department of Anesthesiology at Mount Sinai School of Medicine in New York City. Dr. Serban reports no affiliation with or financial interest in any organization that may pose a conflict of interest.

Learning Objective

At the completion of this activity, participants should be better able to:

- Accurately diagnose fibromyalgia syndrome using diagnostic procedures, including physical examination techniques.

Statement of Need and Purpose

Fibromyalgia (FM) syndrome is the most common chronic pain syndrome encountered in general medicine, estimated to affect 5 million adults in the United States. FM involves multiple clinical domains, including pain, fatigue, sleep disturbances, depression, and cognitive impairment. Patients with FM report significant negative impact of the illness on social and occupational function and overall quality of life. Much progress has been made in understanding FM, yet management of the condition continues to confound physicians and frustrate patients. Evaluating and treating the multiple domains of FM simultaneously presents a substantial challenge for clinicians. The complex interactions between neurobiological, psychological, and functional/behavioral components of FM, as well as the poor response of patients to conventional pain therapies, have proven particularly challenging. Patients report using an average of 3–4 medications to manage their FM. Research has shown that a multimodal management program yields the most benefit to patients. To implement this paradigm, physicians—including primary care physicians, neurologists, and psychiatrists—need direction regarding the diagnosis of FM, available pharmacologic and nonpharmacologic interventions, and clinical application. Using clinical case studies as an educational tool to discuss the clinical presentation, differential diagnosis, and treatment of FM, will help physicians to identify those patients with symptoms of FM and follow through with adequate treatment.

Target Audience

This activity is designed to meet the educational needs of psychiatrists and neurologists.

Accreditation Statement

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the Mount Sinai School of Medicine and MBL Communications, Inc. The Mount Sinai School of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation

The Mount Sinai School of Medicine designates this educational activity for a maximum of 0.25 *AMA PRA Category 1 Credits™*. Physicians should only claim credit commensurate with the extent of their participation in the activity.

To Receive Credit for this Activity

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FIBROMYALGIA SYNDROME: *DIAGNOSIS AND COMORBIDITIES*

By Benjamin H. Natelson, MD

SLIDE LIBRARY

SLIDE 1
Criteria for Fibromyalgia Diagnosis[1,2]

≥ 3 months of widespread pain
- Pain on both sides of the body
- Pain above and below the waist
- Axial skeleton pain

Tenderness or pain with 9-lb pressure, in 11 or more of 18 areas depicted
- A measure of diffuse tenderness that often extends into face and jaw = temporomandibular joint dysfunction

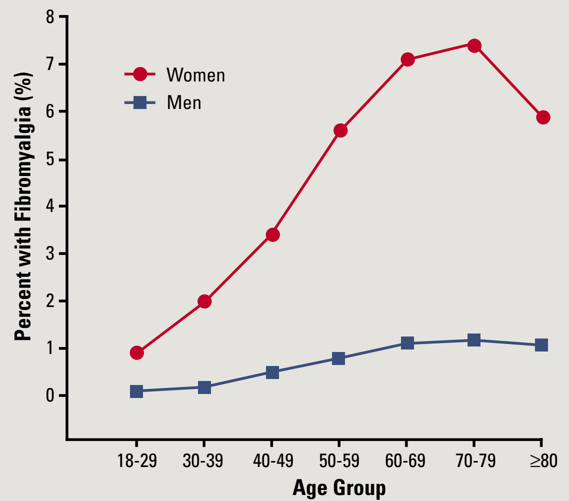
SLIDE 2
Population at Risk and Prevalence[3-5]

Problem in women's health (W:M = 1.5–2:1)

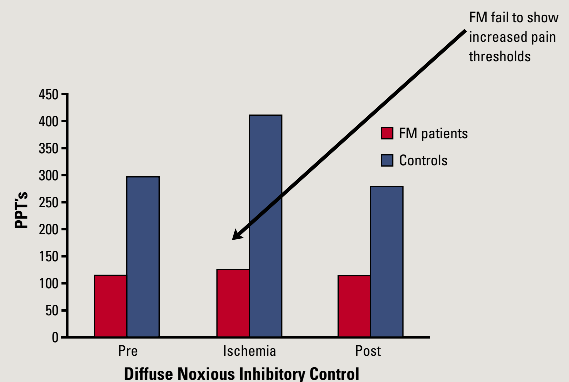
Widespread pain in the absence of rheumatological disease ~11% of population
- With multiple tender points requirement, rates fall to 2% to 4% = primary FM
- Rates are the same in population of Amish women with limited secondary gain
  - Not hypochondriasis or classical somatizing

In the presence of rheumatological disease, rates of FM increase 5-fold (secondary FM)

SLIDE 3
Gender and Age by Decade[6]



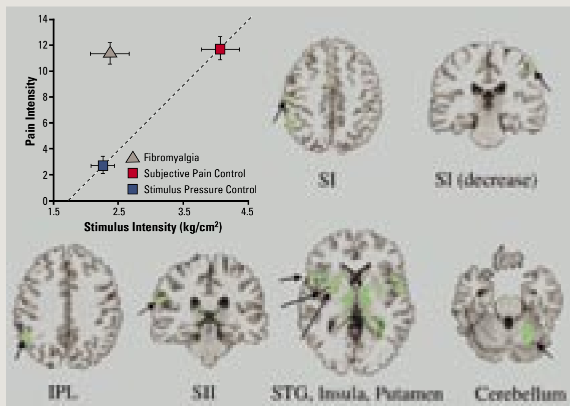
SLIDE 4
Fibromyalgia is a Disease of Brain, Not of the Joints[7]



PPTs=pressure pain threshold; Pre=pre-ischemic probe; Post=post-ischemic probe.

SLIDE 5

Stimuli and Responses During Pain Scans[8]



Common regions of activation in patients (beige) and in the subjective pain control condition (red), in which the effects of pressure applied to the left thumb sufficient to evoke a pain rating of 11 (moderate) are compared with the effects of innocuous pressure. Significant increases in the functional magnetic resonance imaging signal (arrows) resulting from increases in regional cerebral blood flow are shown in standard space superimposed on an anatomic image of a standard brain. Images are shown in radiologic view, with the right brain shown on the left. Overlapping activations are shown in yellow. The similar pain intensities, produced by significantly less pressure in patients, resulted in overlapping or adjacent activations in the contralateral primary somatosensory cortex (SI); inferior parietal lobule (IPL); secondary somatosensory cortex (SII); superior temporal gyrus (STG), insula, and putamen; and in the ipsilateral cerebellum.

Reprinted from: Gracely RH, Petzle F, Wolf JM, Clauw DJ. Functional magnetic resonance imaging evidence of augmented pain processing in FM. *Arthritis Rheum.* 2002;46(5):1333-1343.

SLIDE 6

Recent Statistics on the Diagnostic Pattern of Fibromyalgia[9-11]

The diagnosis of fibromyalgia is typically made by:
- Rheumatologists: 42.4%
- Family physicians: 23.2%
- Internists: 12.2%

Complex or treatment-resistant cases treated by:
- Neurologists, psychiatrists, physiatrists: pain managers

Best outcome follows early diagnosis and maintenance by a primary care physician

Diagnosis often has a delay of 5–7 years

SLIDE 7

Disability and Total Joint Arthroplasty in Rheumatoid Arthritis Patients With or Without Fibromyalgia[12]

Work Disability (%)	RA N= 9,788	RA + FM N=2,078	Odds Ratio (95% CI)
Work disability – ever (all ages)	26.4	45.5	3.3 (3.0-3.7)
Work disability – ever (age <65)	27.5	60.8	4.0 (3.5-4.6)
Any current disability payment (age <65)	23.1	54.4	4.0 (3.5-4.6)
Social Security disability (current) (age <65)	14.9	42.7	4.3 (3.7-5.1)
Joint replacement or total joint arthroplasty	11.2	14.0	1.3 (1.1-1.5)

Groups matched for age, sex, and duration of RA.

RA=rheumatoid arthritis.

SLIDE 8

Fibromyalgia: Medical Differential Diagnosis

Rheumatological disorders
- Rheumatoid arthritis, systemic lupus erythematosus, or other classical rheumatological process
- Polyarticular osteoarthritis
- Seronegative spondyloarthritis (ankylosing spondylitis, psoriatic arthritis)
- Vitamin D-deficiency–induced osteomalacia

Sleep disorders – apnea, restless legs syndrome

Neurological disorders (rare)
- Multiple sclerosis; spinal stenosis; Arnold-Chiari
- Multiple radiculopathies or neuropathy

SLIDE 9
Making the Diagnosis of Fibromyalgia

CBC (hematological condition causing fatigue)
Chemistry profile (hyper parathyroid or other abnormality causing pain and/or fatigue)
TSH/free thyroxine (hypothyroidism causing fatigue, weakness, achiness)
ESR, C-reactive protein, CPK (inflammatory condition causing pain and/or fatigue)
LFTs including SGGT (fatty liver or hepatitis C causing fatigue)
C6 Lyme ELISA - if living in endemic areas (Lyme causing pain and/or fatigue)
Vitamin D panel and B_{12} (deficiencies can produce fatigue and/or pain)
ANA; rheumatoid factor, etc. (cause of secondary fibromyalgia)

CBC=complete blood count; TSH=thyroid stimulating hormone; ESR=erythrocyte sedimentation rate; CPK=creatine phosphokinase; LFTs=liver function tests; SGGT=serum γ-glutamyl transferase; ELISA=enzyme-linked immunosorbent assay; ANA=antinuclear antibody test.

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CLINICAL CASE UPDATE IN FIBROMYALGIA MANAGEMENT
FIBROMYALGIA SYNDROME: DIAGNOSIS AND COMORBIDITIES

CME QUESTIONS

1. . The association of fibromyalgia (FM) syndrome with rheumatoid arthritis (RA) is believed to mean which of the following?

A. That the two disorders can coexist, so optimal management involves treating both

B. The RA is a figment of the patient's imagination

C. The FM represents the patient's attempt to get the doctor's attention

D. That FM will eventually become RA

2. Rates of FM peak in which of the following populations?

A. Young women

B. Equally distributed across ages

C. Older men

D. Women and the elderly

3. Rates of FM increase dramatically over those occurring in the general population for which of the following groups?

A. Patients with major depressive disorder

B. Amish women

C. Patients with osteoarthritis

D. Patients with RA

4. Current thinking is that FM is a disease of:

A. Ligaments

B. Joints

C. Muscles

D. Brain

REGISTRATION

FEBRUARY 2010 CME POSTTEST

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ANSWER FORM

Expert Panel PsychCast™ – Clinical Case Update in Fibromyalgia Management
Fibromyalgia Syndrome: *Diagnosis and Comorbidities*

TERMINATION DATE: February 19, 2012

To receive credit, you should score 70% or better (participants will receive certification for their records in approximately 4–6 weeks). Early submission of this posttest is encouraged. Please submit this test by February 1, 2012, to be eligible for credit. If you have any questions about this, or any of our other CME materials, please e-mail CME@mblcommunications.com

Please circle your answers

1. A B C D 2. A B C D 3. A B C D 4. A B C D

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1=Minimally, 5=Completely

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