Psychiatric Aspects of Fibromyalgia Syndrome

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Fibromyalgia – Basics*

- Chronic widespread physically debilitating pain syndrome:
  - Relapsing, diffuse, aching pain can be intermittent
  - Excessive generalized musculoskeletal tenderness
  - Tenderness exhibited as allodynia (nonpainful stimuli evoking pain), hyperpathia (painful stimuli evoking exaggerated and prolonged pain response), and hyperalgesia (extreme sensitivity to painful stimuli) (1)
  - Lasting $\geq 3$ consecutive months

*Stat Reference
Fibromyalgia – Kristin L. Foley, DO; William M. Foley, DO, MSc
Fibromyalgia-Associated Psychiatric Symptoms

- Severe fatigue
- Exercise intolerance and functional impairment of activities of daily living (ADLs)
- Sleep disturbance (insomnia and nonrestorative sleep)
- Cognitive dysfunction (especially issues with motivation, concentration, and organization)
- Mood disorders (depression and anxiety)
Epidemiology/Incidence/Prevalence

Predominant sex: Female > Male
(~90% are females)

Predominant age: 20-65 years

2-5% of adult US population
Risk Factors

• Female gender

• Poor functional status

• Negative/stressful life events

• Low socioeconomic status
- Inheritance is unknown, but likely polygenic

- High familial aggregation

- Odds ratio may be as high as 8.5 for a 1st-degree relative of a familial proband

- Commonly comorbid with mood or anxiety disorders in families
Environmental

- Physical trauma or injury

- Stressors (e.g., work, family, life events, and abuse)

- Some studies report correlations to certain infections (e.g., Lyme disease and hepatitis C).
Etiology

- Abnormality in CNS pain processing
- Genetic/Familial/Environmental factors
- Mood or anxiety disorder
- Decrease in blood flow to the thalamus and caudate nucleus
- Afferent augmentation of peripheral nociceptive stimuli
- Alterations in neuroendocrine, neuromodulation, neurotransmitter, neurotransporter, biochemical, and neuroreceptor function/physiology (1)
- May be triggered or aggravated after a negative life event, physical injury, or illness
Irritable bowel syndrome, fatigue, morning stiffness, muscle weakness, headache, abdominal pain, dizziness, visceral organ dysfunction (noncardiac chest pain, heartburn, and palpitations), insomnia, depression, constipation, nausea, nervousness, blurred vision, fever, diarrhea, dry mouth, itching, wheezing, Raynaud phenomenon, hives, tinnitus, heartburn, oral ulcers, change in taste, seizures, dry eyes, dyspnea, loss of appetite, rash, sun sensitivity, hearing difficulties, easy bruising, hair loss, urinary urgency, bladder spasms, interstitial cystitis
Diagnosis

Made clinically based on individual presentations; history and physical exam are paramount.

Must consider psychosocial and emotional issues
≥3 months of symptoms - core triad include:

- Chronic widespread, bilateral pain and in the axial skeleton

- Generalized **fatigue** and **sleep disturbances**, sleep unrestorative

- Altered cognition/mood, such as trouble concentrating, forgetfulness, disorganized thinking, and depression/anxiety
• Symptoms can wax and wane, vary in intensity from day to day and by physical location

• Associated somatic symptoms include excessive fatigue (daytime sleepiness), sleep disturbance (insomnia and nonrestorative sleep), and sexual dysfunction (dysparunia, decreased libido)

• Impaired social/occupational functioning

• Absence of identifiable explanation for the pain

• Adverse effect of medication excluded (e.g., statins)
Physical Exam

Revised ACR criteria 2010 abandoned the tender point count and allows quantification of symptom severity (sensitivity 96.6%, specificity 91.8% with Fibromyalgia Symptom scale (FS) score ≥13)

Absent of identifiable disorder to explain the pain
Laboratory & Other Findings

Initial lab tests

CBC with differential, ESR or CRP, CPK, TSH, comprehensive metabolic profile, BUN/creatinine, 25 OH vitamin D level, $B_{12}$, RPR or VDRL

Imaging

Not indicated except to exclude other diagnoses
- Memory
• Sleep studies to rule out obstructive sleep apnea or narcolepsy
Neuropsychiatric Evaluation

- Depression
- Anxiety
- Cognitive disturbance
Medication

- Pharmacotherapies should be selected to address individual patients' major complaints with the lowest effective therapeutic doses to improve daily functioning and quality of life.

- NSAIDs should be tried first but have limited efficacy.

- The 3 FDA-approved drugs are: Pregabalin, Duloxetine, and Milnacipran; others are used off-label.
**First Line**

- **Duloxetine**: Initially 30 mg/d × 1 week, then increase to 60-120 mg/d (7)

- **Milnacipran**: Day 1: 12.5 mg/d; days 2-3: 12.5 mg b.i.d.; days 4-7: 25 mg b.i.d.; after day 7: 50 mg b.i.d.; max dose 100-200 mg PO b.i.d. (7)

- **Pregabalin**: Start with 150 mg/d, then advance to 300 mg/d within 1 week, as needed; max dose 450 mg/d

- **Amitriptyline**: 10-50 mg PO at bedtime (7), used for pain, fatigue, and sleep disturbances (6)
- Gabapentin 1,200-2,400 mg/d PO b.i.d.-t.i.d.; start with lower doses

- Sodium oxybate 4.5-6 g divided; half taken at bedtime and 2nd half 2-4 hours later (highly addictive; use caution)

- Cyclobenzaprine 10-30 mg PO at bedtime (6)

- Fluoxetine 20-80 mg/d PO (higher doses may be more effective)

- Pramipexole 0.125-0.75 mg 2-3 hours before bedtime (6)

- Acetaminophen 325-1,000 mg PO q.i.d. PRN

- Combinations of medicines, such as duloxetine and pregabalin, may be tried.
Additional Treatment

- Low-impact cardiovascular exercise and strength training mandatory. Regular (2-3 times weekly) graded exercise of at least 20 minutes' duration for at least 4 weeks is optimal.

- CBT

- Stress management

- Patient education; can consider group format (9)

- Sleep hygiene

- Psychosocial support

- Consider job/workplace modifications.
References


Additional Reading

• American College of Rheumatology. Practice guidelines, patient education. Available at: www.rheumatology.org.

Q & A