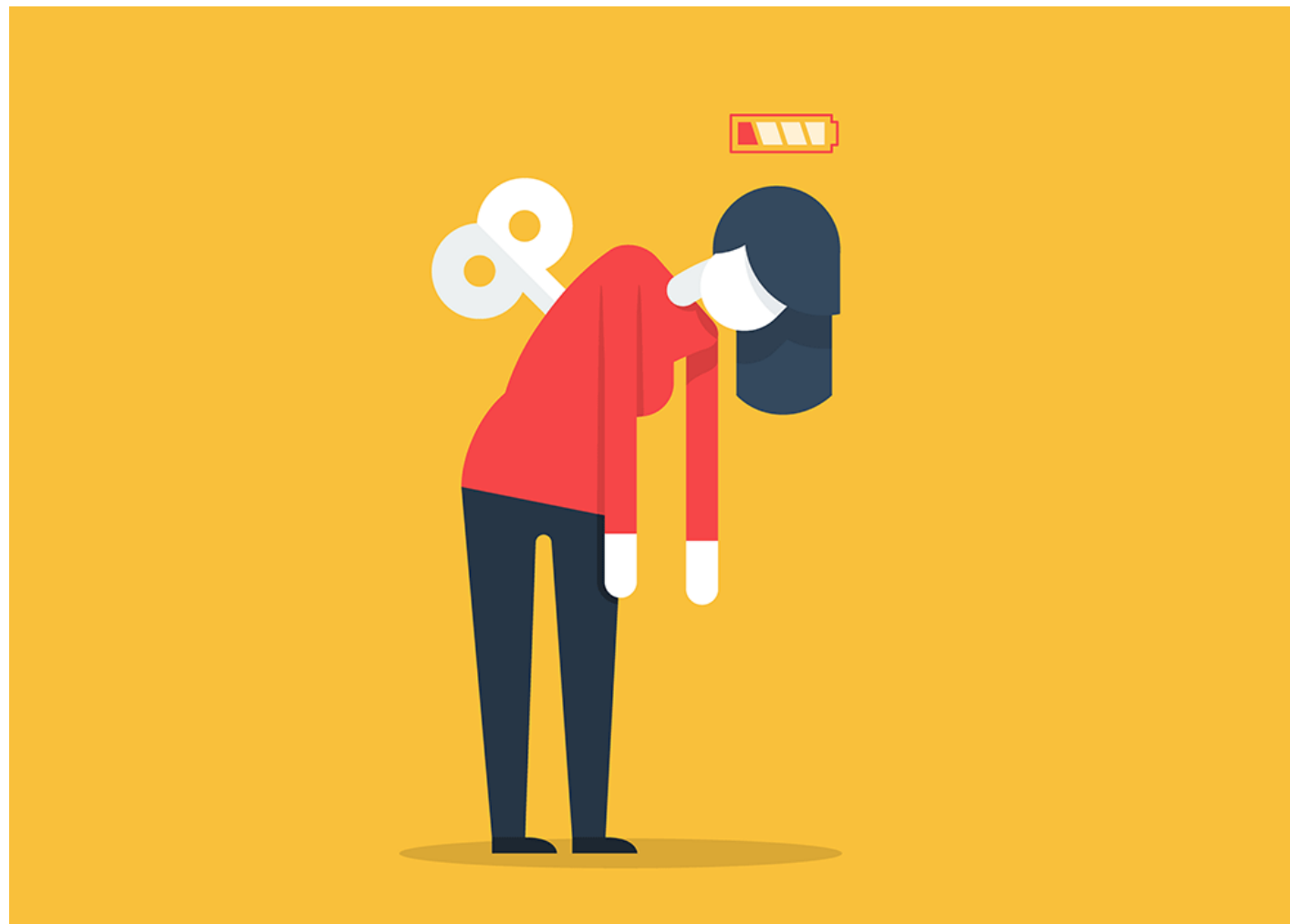
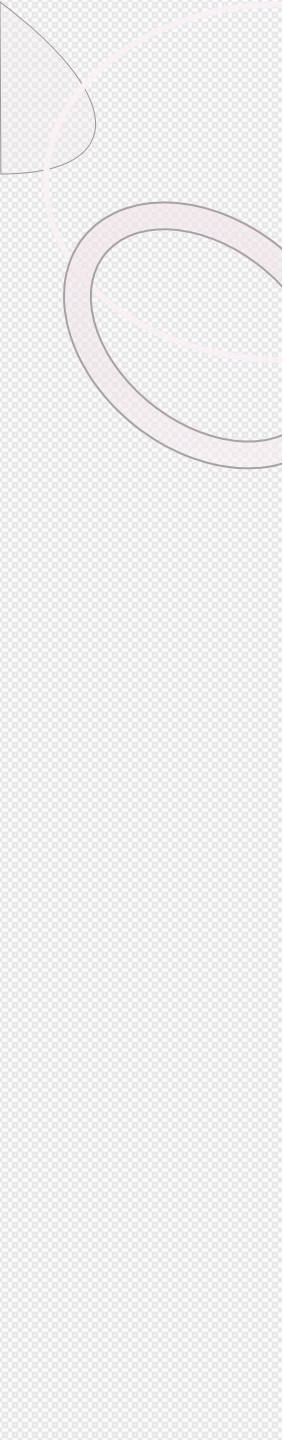




Approach to a patient with fatigue

Dr. Maha El Amami



Epidemiology of Fatigue

One of the **top 10 chief complaints** to family practice office visits

Up to **20%** of patients seeking care

women > men.

Psychiatric illness is present in **60 to 80 %** of patients with chronic fatigue :-

major depression (58 %),

panic disorder (14 %),

somatization disorder (10 %).



Definition of Fatigue

A subjective complaint of tiredness or diminished energy level to the point of interfering with usual activities.



Can be manifested as;

1. **perception of generalized weakness:** difficulty initiating activity;
2. **easy fatigability:** reduced capacity maintaining activity;
3. **mental fatigue:** difficulty with concentration, memory, and emotional stability.



Duration, classified as :

Acute < one month

Subacute > one month

Chronic > 6 months



Etiology of Fatigue

1. Psychological
2. Pharmacologic
3. Endocrine-metabolic
4. Hematologic
5. Infectious
6. Malignancy
7. Cardiopulmonary
8. Disturbed sleep

Major causes of chronic fatigue

Psychologic	Infectious
Depression	Endocarditis
Anxiety	Tuberculosis
Somatization disorder	Mononucleosis
Malnutrition or drug addiction	Hepatitis
Pharmacologic	Parasitic disease
Hypnotics	HIV infection
Antihypertensives	Cytomegalovirus
Antidepressants	Cardiopulmonary
Drug abuse and drug withdrawal	Chronic heart failure
Endocrine-metabolic	Chronic obstructive pulmonary disease
Hypothyroidism	Connective tissue disease
Diabetes mellitus	Rheumatoid disease
Apathetic hyperthyroidism	Disturbed sleep
Pituitary insufficiency	Sleep apnea
Hypercalcemia	Esophageal reflux
Adrenal insufficiency	Allergic rhinitis
Chronic renal failure	Psychologic causes (see above)
Hepatic failure	Idiopathic (diagnosis by exclusion)
Neoplastic-hematologic	Idiopathic chronic fatigue
Occult malignancy	Chronic fatigue syndrome
Severe anemia	Fibromyalgia



Evaluation

History

Physical examination

Laboratory studies

1. History:

The **most important** component.

Rely upon open-ended questions .

Organ-based medical illness fatigue with **activities**

Non organ-based fatigue **all the time** not improving with rest.

2. Physical examination :

General appearance : level of alertness, psychomotor agitation or retardation.

Lymphadenopathy: as in chronic infection or malignancy.

Evidence of thyroid disease : goiter, thyroid nodule, ophthalmologic changes

Cardiopulmonary examination: signs of CHF & chronic lung disease

Neurologic examination: muscle bulk, tone, and strength; deep tendon reflexes; sensory and CN evaluation.

Specific clinical signs of organic diseases associated with fatigue:

Pallor, tachycardia, systolic ejection murmurs:
anemia

Jaundice, palmar erythema, Dupuytren's
contracture chronic liver disease

Goiter or thyroid nodule, dry skin, delayed deep
tendon reflexes, peri-orbital puffiness,
ophthalmological changes hypothyroidism

Specific clinical signs of organic diseases associated with fatigue-Cont'd:

Wt. loss, hyper-reflexia, tachycardia, AF , fine tremor, goiter hyperthyroidism

Hypotension, pigmentation in skin creases, scars, and buccal mucosa Addison's disease

Pulmonary stasis, elevated JVP, ankle edema HF.



3. Laboratory studies:

CBC

Chemistry screen

TSH

CK, if pain or muscle weakness present

Management

The doctor-patient relationship is of profound importance.

The physician will act as a guide in establishing therapeutic goals:

Accomplishing the activities of daily living

Returning to work

Maintaining interpersonal relationships

Performing some form of daily exercise

Brief regularly scheduled appointments

Treat the underlying cause

Fibromyalgia & Chronic fatigue syndrome





Fibromyalgia - Definition

Is a disorder characterized by widespread musculoskeletal pain accompanied by fatigue, sleep, memory and mood issues.

Fibromyalgia- Epidemiology

Up to 10% of rheumatology clinic referrals.

Prevalence: female : male 6:1

Risk factors:

1. Female sex
2. Divorced
3. Middle age
4. Low household income
5. Low educational status
6. Psychosocial risk factors

Fibromyalgia - Diagnosis

Diagnosis of exclusion.

The 2010 ACR diagnostic criteria allow for diagnosis by Hx without specialized training.

2010 ACR Preliminary Criteria for Diagnosis of Fibromyalgia

Widespread Pain Index (WPI) ≥ 7 and symptom severity scale (SS) ≥ 5 OR WPI 3-6 and SS ≥ 9

Symptoms have been present at similar level for ≥ 3 months

Patient does not have disorder that would otherwise explain pain

WPI: number of pain areas over past week

- | | |
|---|--|
| ☐ Shoulder girdle, left | ☐ Lower leg, left |
| ☐ Shoulder girdle, right | ☐ Lower leg, right |
| ☐ Upper arm, left | ☐ Jaw, left |
| ☐ Upper arm, right | ☐ Jaw, right |
| ☐ Lower arm, left | ☐ Chest |
| ☐ Lower arm, right | ☐ Abdomen |
| ☐ Hip (buttock), left | ☐ Neck |
| ☐ Hip (buttock), right | ☐ Upper back |
| ☐ Upper leg, left | ☐ Lower back |
| ☐ Upper leg, right | ☐ None of these areas |

SS score: symptom severity (0-3)

Fatigue	0	1	2	3
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Waking unrefreshed	0	1	2	3
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Cognitive symptoms	0	1	2	3
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0 no problem

1 slight or mild problems, generally mild or intermittent

2 moderate, considerable problems, often present and/or at a moderate level

3 severe: pervasive, continuous, life-disturbing problems

Fibromyalgia – Management:

Non-pharmacological therapy:

1. education
2. exercise program (walking, aquatic exercises), physical therapy (good posture, stretching, muscle strengthening, massage)
3. stress reduction, CBT

Fibromyalgia – Management:

Pharmacological therapy:

1. low dose TCA(e.g. amitriptyline 25mg)
2. SNRI: duloxetine Cymbalta® 30-60mg.
3. anticonvulsant: pregabalin, gabapentin

Chronic fatigue syndrome



Chronic Fatigue Syndrome- Definition

A disorder characterized by a state of chronic fatigue (> 6 months), no clear cause, and is accompanied by cognitive difficulties.

CFS- Epidemiology

Represents a small subset of those who complain of chronic fatigue < 5%.

Disorder of young to **middle aged adults** (at 30 yrs)

Twice as common in **women**



CFS - Etiology

The cause of CFS is unknown.

but the disorder is probably an infectious disease with immunologic manifestations.



CFS- Diagnosis

History

Physical examination

Laboratory tests

The CDC (3) criteria :

- (1) **A new onset of severe fatigue ≥ 6 months**
unrelated to exertion, not relieved by rest or a result of other medical conditions.
- (2) **The fatigue causes a significant reduction of activity levels.**
- (3) **≥ 4 of the following symptoms :**
 - impaired memory or concentration
 - post-exertional malaise, where physical or mental exertions bring on "extreme, prolonged exhaustion and sickness"
 - unrefreshing sleep
 - muscle pain (myalgia)
 - pain in multiple joints (arthralgia)
 - headaches of a new kind or greater severity
 - sore throat, frequent or recurring
 - tender lymph nodes (cervical or axillary)

Diagnosis – Cont'd

It is generally made if the patient has a typical history, and no abnormality can be detected on physical examination or in the screening tests.

Because no direct tests aid in the diagnosis of CFS, the diagnosis is one of **exclusion** but that meets certain clinical criteria.

Management

Pharmacologic Therapy

Manage sleep and pain

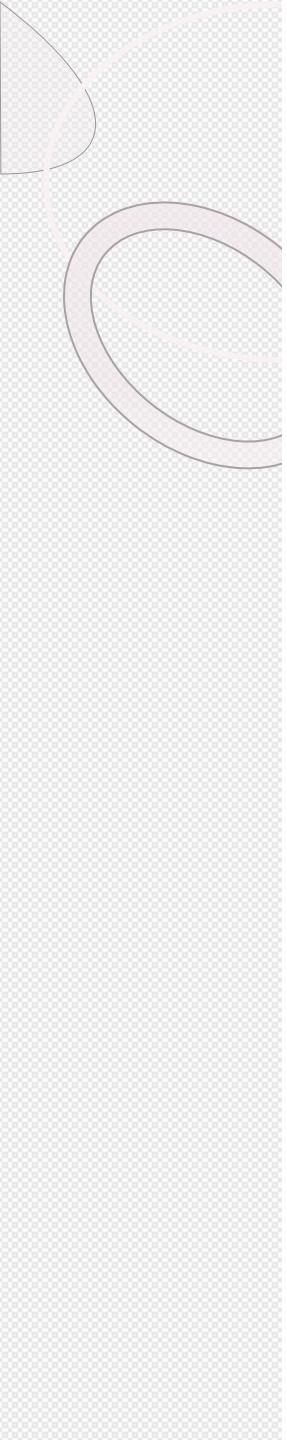
Manage symptoms and comorbidities

Non-pharmacologic Therapy

Promote sleep hygiene

Physical therapies

Psychotherapy: CBT, family therapy



Thank you!

