
The Modern Management of Chronic Fatigue Syndrome

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Chronic Fatigue Syndrome is a new name for an old disorder characterized by fatigue and multiple somatic symptoms. There is still no consensus on the terminology, disease criteria and treatment in Chronic Fatigue Syndrome. We attempt to review the related contemporary literature.

Chronic Fatigue Syndrome is severe fatigue that persists or relapses for 6 months and is accompanied by at least four of the eight symptom criteria: 1) impaired memory or concentration, 2) sore throat, 3) tender cervical or axillary lymph nodes, 4) muscle pain, 5) multijoint pain, 6) new headaches, 7) unrefreshing sleep, 8) postexertional malaise. Chronic Fatigue Syndrome is excluded when fatigue can be explained by known medical or psychological diagnoses. The goal of the treatment is to accommodate the illness, minimize symptoms and maximize performance.

Key words: chronic fatigue syndrome, fatigue severity

INTRODUCTION

Chronic Fatigue Syndrome (CFS) is a real illness. In CFS, symptoms occur out of proportion to currently identifiable pathology. Fatigue is usually found to be caused by one of three types of disorders. These disorders are psychiatric diseases (usually depression, anxiety, or somatoform disorders), 60%; chronic fatigue syndrome, 30%; and medical diseases, 10%. CFS is more prevalent in women (female to male ratio 7:3). The mean age of onset is 38 years. The prevalence has been measured from 2 to 200 per 100,000. CFS is also known as the "century disease" (1). To work effectively with CFS patients, health care professionals must be comfortable with making a diagnosis based solely on history without abnormal physical findings or abnormal test results. The absence of objective measures of illness severi-

ty, functional limitations and response to therapy is a challenge for CFS caregivers.

There is still no consensus on terminology, disease criteria and treatment in CFS (1).

OBJECTIVE. To present modern diagnostic criteria and treatment of CSF.

METHODS. We attempt to review contemporary literature about the terminology, disease criteria and treatment in CFS.

RESULTS AND DISCUSSION

Terminology, disease criteria

Over the past 100 years the symptoms, now labeled as chronic fatigue syndrome, have been known as neurasthenia, chronic brucellosis, candidiasis, hypoglycemia, and environmental illness. In 1980, because

Table 1. **International Chronic Fatigue Syndrome (CFS) Study Group case definition of CFS**

In a patient with severe fatigue that persists or relapses for 6 months, classify as CFS if fatigue is severe and accompanied by at least 4 symptom criteria.

Fatigue severity: Fatigue of new or definite onset (not life-long) and not substantially alleviated by rest, resulting in substantial reduction in previous levels of occupational, educational, or personal activities.

Symptom criteria: Beginning at or after onset of fatigue and concurrently present after 6 months:

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|---|----------------------------|
| 1. Impaired memory and concentration. | 5. Multijoint pain. |
| 2. Sore throat. | 6. New headaches. |
| 3. Tender cervical or axillary lymph nodes. | 7. Unrefreshing sleep. |
| 4. Muscle pain. | 8. Postexertional malaise. |

of reports linking fatigue, somatic complaints and a positive Epstein-Barr virus (EBV) serology, the illness became known as chronic EBV syndrome or chronic mononucleosis (2).

Now Chronic Fatigue Syndrome is a new name for an old disorder characterized by fatigue and multiple somatic symptoms.

The U. S. Centers for Disease Control and Prevention (CDC) devised a case definition for CFS in 1988 and slightly modified it in 1994. The 1994 case definition of CFS is known as the International Chronic Fatigue Syndrome Study Group (ICFSG) case definition (Table 1) (1).

According to this definition, CFS is excluded when fatigue can be explained by known medical or psychological diagnoses (Table 2) (1).

Within the report that redefined CFS, the ICFSG also coined the term “idiopathic chronic fatigue” to mean a case of severe prolonged fatigue without sufficient associated symptom criteria to qualify as CFS.

A variety of poorly understood illnesses characterized by fatigue and somatic complaints are probably closely related to CFS. These illnesses appear to represent extreme forms of the same underlying disorder known as the “affective spectrum disorder”. This disorder is associated with a neurochemical imbalance and dysfunction of the central nervous system. Affective spectrum disorder is characterized by a spectrum of presenting symptoms. Whichever symptom predominates determines the name of the illness. Examples of illnesses that constitute the affective spectrum disorder include CFS, fibromyalgia, premenstrual syndrome, irritable bowel syndrome, chronic hypoglycemia and chronic muscle tension headaches [3].

Other illnesses that are closely related to or identical with sensitivities are the yeast connection, environmental illnesses, seronegative Lyme disease, silicone breast implant syndrome, Gulf War syndrome (4–11). In each of these illnesses, there is often a conflict between patients who ascribe their symptom to an organic cause (which may not be evident even after extensive investigation) and the medical establishment, which tend to affix a psychiatric diagnosis to these symptoms.

So, CFS is a diagnosis of exclusion. In the evaluation of a patient with fatigue, every medical and

psychiatric diagnosis must be excluded before conferring a diagnosis of CFS. If CFS is incorrectly diagnosed, then the patient will miss out an treatment for the actual undiagnosed disease, and that condition might irreversibly worsen during the time that treatment for CFS is being inappropriately prescribed (6).

The diagnostic work-up of fatigue consists of a history, a complete physical examination, laboratory tests and psychologic testing. A history for fatigued patient should include an estimate of what percentage of the premorbid energy is now present. Most CFS patients estimate 50% or less. They also complain of the eight CDS or four ICSFG symptom criteria of CFS.

The physical examination should include measurement of temperature and a search for exudative pharyngitis or palpable lymph nodes which are usually not found. Laboratory tests in a fatigue work-up need to consist of a chemistry panel, a sedimentation rate, a complete blood count, thyroid stimulating hormone level, and a urinalysis. No other studies are needed unless the fatigue is accompanied by significant symptoms that require testing in their own right.

The exact cause of CFS isn't known. The CFS is often triggered by an acute physical stress such as an infection, trauma, surgery, or even a long vacation. EBV is one of the possible triggers; however, the final pathways of symptoms for all acute-onset cases are similar. There is no reason to obtain EBV serology tests in the work-up for CFS. These tests are not specific enough to distinguish patients with CFS from approximately 90% of the adult population with serologic evidence of a prior EBV. So, serologies for EBV, cytomegalovirus, human herpes virus 6, *Borrelia burgdorferi*, Candida, and magnetic resonance images of the brain are examples of tests that should not be performed in the routine work-up for fatigue, but should be reserved for selected patients (1).

Minor perturbations of the immune system have been reported in CFS. They are for the most part not severe, not consistent and not apparently mechanistically linked to the symptoms of CFS. The acronym CFIDS (chronic fatigue and immune dysfunction syndrome) does not seem to be as accurate a description of the illness as CFS. The acronym

Table 2. International Chronic Fatigue Syndrome (CFS) Study Group Criteria for exclusion from a Diagnosis of CFS

1. A documented fatiguing medical disease.
2. A previously diagnosed fatiguing medical disease that has not fully resolved .
3. A prior or current major depressive disorder with psychiatric features such as bipolar disease, schizophrenia, dementia, anorexia nervosa, or bulimia nervosa.
4. Substance abuse within 2 years of the onset of fatigue.

CFIDS is usually not used by mainstream CFS researchers or clinicians.

Psychologic testing can consist of a simple mental status examination to exclude a thought disorder.

Treatment

CFS is a chronic illness. The goal is to accommodate the illness, minimize symptoms, and maximize performance. The premorbid lifestyle was generally unhealthy for the patient and should not be the target for rehabilitation. CFS patients need to recognize which activities increase symptoms and then modify their lifestyles to minimize symptoms (2, 12).

There are three principles for physicians who treat CFS patients: 1) be optimistic, 2) aim for gradual improvement, 3) recognize the mind–body connection. CFS treatment is directed at both the medical and psychologic aspects of the illness. CFS treatment includes nonpharmacologic and pharmacologic treatment.

Nonpharmacologic treatment of chronic fatigue consists of exercise, relaxation methods and diet. Exercise is the most important treatment for CFS. To reverse muscle atrophy, to relieve anxiety and depression and to provide a metaphor for success when fatigued patients cannot perform simple tasks – these are exercise purposes in CFS patients. Patients with CFS are usually fatigued to exercise. They typically end up in a negative cycle consisting of rest, muscle atrophy, decreased performance, pessimism, disinterest in exercise, and more rest. Daily exercise can replace that cycle with a positive cycle consisting of exercise, muscle hypertrophy, increased performance optimism, interest in exercise, and more exercise. Daily exercise such as walking, bicycling or swimming is best. The duration can be as little as 5 minutes per day and should be increased each week by 3 to 5 minutes up to 60 to 120 minutes daily (12).

Relaxation methods (biofeedback, hypnosis) can decrease CFS symptoms. Individual psychotherapy can help CFS patients cope with the frustration of developing a chronic illness, and often this treatment is essential to recovery (12).

A hypoglycemia-avoidance diet is helpful because it prevents the autonomic hyperactivity response that is similar in CFS and reactive hypoglycemia. Patients should avoid simple sugars, fruit juice, large meals, caffeine and alcohol. There is evidence that evening primrose oil, 500 mg twice daily, decreases muscle and joint pains in CFS (12).

There are agents of pharmacologic treatment of CFS: nonsteroidal anti-inflammatory drugs (NSAIDs), symptomatic medications, tricyclic anti-

depressants, selective serotonin reuptake inhibitors (SSRIs).

Nonsteroidal anti-inflammatory drugs are useful for the muscle and joint pains of CFS. Long-acting medications are preferable because CFS patients might forget to take short-acting medications that require several daily dose.

Symptomatic medications can reduce pain, muscle spasm, and bowel spasm in CFS. For pain, acetaminophen and tramadol (Ultram) are effective. For muscle spasms, cyclobenzaprine (Flexeril) taken after dinner or several hours before bedtime, and carisoprodol (Soma) and metaxalone (Skelaxin) used in the daytime are effective. For bowel spasm, antispasmodics plus insoluble dietary fiber, such as two heaping teaspoons of oat bran daily, are effective.

Tricyclic antidepressants are effective for insomnia of CFS. The dosage used in this setting is far lower than for depression. Selective serotonin reuptake inhibitors (SSRIs) are effective for the hypersomnia that is common in CFS, and they also provide mood elevation. These medications are activating or stimulating and are also useful for obsessive–compulsive traits (2).

Whether the goal of treatment is rehabilitation from work disability or a less constricted lifestyle, adherence to treatment is the best prognostic factor. When the patient with CFS is motivated to improve and the physician utilizes a combined medical and psychologic treatment approach, then great improvement is possible.

CONCLUSIONS

1. Chronic Fatigue Syndrome is a new name for an old disorder characterized by fatigue and multiple somatic symptoms.

2. Chronic Fatigue Syndrome is a severe fatigue that persists or relapses for 6 months and is accompanied by at least 4 of the 8 symptom criteria: 1) impaired memory or concentration, 2) sore throat, 3) tender cervical or axillary lymph nodes, 4) muscle pain, 5) multijoint pain, 6) new headaches, 7) unrefreshing sleep, 8) postexertional malaise.

3. CFS is excluded when fatigue can be explained by known medical or psychological diagnoses.

4. The goal of CFS treatment is to accommodate the illness, minimize symptoms and maximize performance.

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ŠIUOLAIKINIAI LĒTINIO NUOVARGIO SINDROMO DIAGNOSTIKOS KRITERIJAI IR GYDYMO METODAI

S a n t r a u k a

Lėtinio nuovargio sindromas – taip pavadinti sutrikimai, kuriems būdingas nuovargis ir daugybė somatinių simptomų. Iki šiol nėra vieningos nuomonės apie lėtinio nuovargio sindromo diagnostikos kriterijus ir gydymą. Šio straipsnio tikslas – pateikti šiuolaikinius lėtinio nuovargio sindromo diagnostikos kriterijus, terminologiją ir gydymo metodus, apžvelgiant naujausius literatūros duomenis.