

Fibromyalgia

Fibromyalgia is one of the main chronic pain disorders affecting approximately 2% of people by the age of 20, increasing to 8% of people by age 70. It was not defined until the late 20th century but descriptions can be found as early as the 17th century. It is more common in women than men; in fact it occurs 9 times more frequently women than men. Symptoms generally start to occur between the ages of 30 and 55. The condition affects connective tissues which include the muscles, ligaments and tendons. Myalgia, which means muscle pain, is the main symptom while debilitating fatigue, sleep disturbances, joint stiffness, headaches and mood disturbances can also occur. Fibromyalgia commonly co-exists with psychiatric conditions such as depression, anxiety and other stress related disorders. The cause, diagnosis and optimal treatment of fibromyalgia are still not clear.

Causes

The cause of fibromyalgia is unknown but it is thought that various physical or emotional factors may trigger symptoms. The muscles and tendons seem to be normal but yet are excessively irritated by painful stimuli e.g. heat, noise or strong odours. Fibromyalgia is now classified as a neurosensory disorder characterised by abnormalities in pain processing by the central nervous system. The latest theory suggests there is a genetic predisposition to fibromyalgia (it runs in families) due to a heightened sense of pain brought on by stress factors including infection, physical and emotional trauma or sleep disturbances. It is often associated with or co-exists with other central sensitivity syndromes such as chronic fatigue syndrome, irritable bowel syndrome, migraine, restless leg syndrome, and posttraumatic stress disorder.

Symptoms

Pain

Pain is defined as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage”. The primary symptom of fibromyalgia is widespread, chronic and persistent pain described as deep muscle aching, stiffness, burning and throbbing.

How do people describe the symptoms?

Many people with fibromyalgia describe the pain as aches all over the body. Muscles can feel like they have been pulled or overworked. Sometimes the muscles twitch and at other times they burn.

Fibromyalgia pain is also described as numbness and tingling and is aggravated by stress factors including anxiety, stress, and lack of sleep, exertion, cold or damp conditions. People with fibromyalgia experience a kind of mental foggiess or clouding of consciousness which can lead to decreased concentration, problems with short and long term memory, decreased speed of performance and inability to multi-task. Depression and anxiety can exacerbate the pain in fibromyalgia.

Patients with fibromyalgia are often affected by other pain symptoms such as:

- (1) Migraine or muscular headaches
- (2) Irritable bowel syndrome- which includes episodes diarrhoea, constipation or both
- (3) Interstitial cystitis/painful bladder syndrome
- (4) Facial and jaw pain or tenderness

In addition fibromyalgia occurs in high frequency with other inflammation disorders such as systemic lupus erythematosus, chronic hepatitis C infections and rheumatoid arthritis, osteoarthritis, ankylosing spondylitis, hypothyroidism and other endocrine disorders.

Fatigue/sleep disturbances

Persistent fatigue occurs in more than 90 percent of people with fibromyalgia. Most people complain of light, disturbed sleep or difficulty falling asleep, waking repeatedly during the night and feeling exhausted during the day. The fatigue associated with fibromyalgia is an all encompassing exhaustion that can interfere with personal, occupational and social activities. Studies show that during sleep, people with fibromyalgia can suffer from bursts of awake like brain activity. Sleep apnoea or restless leg syndrome is also common with fibromyalgia.

Depression and anxiety

Approximately 30% of people with fibromyalgia have major depression at the time of diagnosis. The reason for the high rate of depression in people with fibromyalgia is not fully understood. However, there are a few theories. For example, people suffering from fibromyalgia have lower levels of neurotransmitters such as serotonin in the brain leading to depression. The fact the fibromyalgia leads to frequent and debilitating pain and fatigue is likely to be a major cause of depression.

Diagnosis

There is no specific test to diagnose fibromyalgia. Doctors must rely on patient histories, self-reported symptoms, a physical examination and an accurate manual tender point examination. The American College of Rheumatology (ACR) developed classification criteria for fibromyalgia in 1990 which is used as a diagnostic tool. Using these criteria, people are classified as having fibromyalgia if they have the following symptoms:

- (1) widespread musculoskeletal pain in all four quadrants of the body for a minimum of three months
- (2) excess tenderness in at least 11 of 18 specific sites known as tender points

It is estimated that it takes five years for an accurate diagnosis of a fibromyalgia patient. Patients with fibromyalgia frequently have additional symptoms including fatigue, headache, additional pain symptoms and sleep and mood disturbances. The ACR diagnostic tool has led to increased recognition of fibromyalgia among health professionals and a massive surge in diagnosis in the last 20 years.

Fibromyalgia treatments

Fibromyalgia is not a deforming condition or does not result in life threatening complications however chronic pain treatment is a challenge. Fibromyalgia is a multifaceted problem and must be treated with various treatments such as medication, stretching exercises, and counselling.

Medication

There are a variety of medications used to treat the symptoms of fibromyalgia, the most successful ones in clinical trials have been antidepressants and antiepileptic medications.

Antidepressants

Selective serotonin reuptake inhibitors (SSRIs)

Examples of these include fluoxetine and paroxetine. SSRI's mode of action is to increase the amount of serotonin available for serotonin receptors in the brain, therefore aiding and regulating message delivery between nerve cells.

SSRIs have been shown to produce benefits for fibromyalgia sufferers due to the fact that serotonin was observed to be abnormally low. Low serotonin levels are believed to be as a result of low serotonin precursor tryptophan available in the cerebrospinal fluid. Studies have shown that low serotonin is linked to sleep patterns, mood disorders, pain perception and headaches which are common symptoms of fibromyalgia sufferers.

Tricyclic antidepressants (TCAs)

Examples of these include amitriptyline and dosulepin. It has been shown in clinical trials that the tricyclic antidepressants taken before bed can aid sleep and lessen muscle pain. Amitriptyline is a muscle

relaxant which also has antidepressant capabilities. TCAs are started on a low dose then titrated upwards until clinical effectiveness. Although improvement is seen in about 30% of patients TCAs have unwanted side effects such as dry mouth, weight gain, constipation and fluid retention even at low doses and effectiveness can decrease with time².

Dual reuptake inhibitors

Examples of these include venlafaxine (Efexor[®]) and duloxetine (Cymbalta[®]). Their method of action is to increase both serotonin and norepinephrine, two neurotransmitters in the brain. Duloxetine in particular has shown positive results for fibromyalgia sufferers improving fatigue and lessening pain. Common side effects associated with these drugs are nausea and dizziness but there is less chance of this if taken after food and started on lower dose and increasing slowly upwards.

Anticonvulsants

Anticonvulsants, which are usually used for the treatment of epilepsy, can be used in fibromyalgia to aid sleep and relieve pain. For example pregabalin (Lyrica[®]) has been approved for treatment of fibromyalgia in the US³. Pregabalin reduces the activity of over stimulated nerve cells thus reducing the communication of pain sensation within the body.

Another antiepileptic that has been used in the past with some success was gabapentin (Neurontin[®], Gabin[®]), however it is only approved for neuropathic pain and side effects include sedation, dizziness, swelling in the lower legs and weight gain.

Anti-inflammatory drugs

Non steroidal anti-inflammatory drugs (NSAIDs)

Although fibromyalgia doesn't cause tissue inflammation, when used in combination with other medication such as antidepressants and anticonvulsants they have shown some benefit. Examples of NSAID's used are ibuprofen and diclofenac but side effects of these include gastric irritation, fluid retention and kidney damage. Also the selective COX-2 inhibitors, Arcoxia[®] and Celebrex[®], are used but patients with known cardiovascular problems are recommended to avoid these as it can cause increase risk of myocardial infarction (heart attack).

Analgesics

Examples of analgesics used are paracetamol, solpadeine, tramadol. While these can help relieve painful symptoms they are not a long term solution and can have negative side effects. Tramadol can cause dizziness, diarrhoea and even sleep disturbances in some patients. Opioid analgesics can lead to long term use and are avoided due to risk of addiction problems.

Alternative treatments

Education of the benefits of lifestyle adaption is important for fibromyalgia sufferers. There are a number of complimentary treatments which have shown a significant improvement of symptoms and an increased quality of life for people living with fibromyalgia. Conventional medication may be only part of the potential treatment programme. However, the effectiveness of alternative treatments varies greatly from person to person.

Exercise

Cardiovascular exercises such as running, swimming, cycling and walking can greatly improve muscle strength and reduce muscle pain. Aerobic exercise lessens pain and fatigue in the long term. Exercise also increases the time spent in deep sleep. Physiotherapy, water therapy and aerobics have all shown great benefit for patients when undertaken for 30 minute intervals three times per week. Exercise works best when the patient avoids exercising the most painful muscles. Patients must be careful not to overdo physical activity because this may trigger a relapse.

Diet and Nutrition

A diet high in fresh fruit and vegetables is important. Refined foods and sugars should be limited. Magnesium is important for the maintenance of muscles, tendons and bones. Research shows that magnesium boosts energy and relieves pain in those suffering from fibromyalgia. However, this is not fully proven yet. Magnesium is thought to reduce pain by boosting a coenzyme called Adenosine Triphosphate (ATP). Good sources of dietary magnesium include soybean products, whole wheat flour, cashew nuts, almonds, rice and legumes.

Other supplements that may benefit patients with fibromyalgia include Omega 3's. Fish oil is recommended for fibromyalgia because it contains the omega-3 fatty acids, eicosapentaenoic acid (EPA), and docosahexaenoic acid (DHA), precursors to eicosanoids that reduce inflammation throughout the body. There is some evidence that Omega 3's reduce pain associated with fibromyalgia. Omega 3 fatty acids are primarily found in oily fish such as salmon, fresh tuna, mackerel, herring, sardines and pilchards. In general we should aim to eat two portions of fish per week, one of them oily. For those suffering from fibromyalgia who don't eat enough fish, I would recommend a fish oil supplement called Morepa[®]. Morepa[®] is the richest and purest source of Omega 3 EPA fish oil you can buy. One 1,000 mg capsule contains 535 mg EPA (approx) and 87 mg of DHA (approx), pure essential Omega 3 fatty acids. Just one capsule per day gives you the entire Omega 3 EPA you need. Omega 3's have also been shown to enhance mood. A 2008 study in Sweden showed that Morepa[®] is as effective as some prescription anti-depressants in controlling depression. Those whose main symptom in inflammatory pain may benefit from a unique anti-inflammatory fish oil supplement called Lyprinol[®]. Ask in Whelehans for more details.

Co-enzyme Q10 is a vital enzyme in the body and one of its main rolls is to release energy. Researchers from the University of Pablo de Olavide in Seville in Spain in 2009 discovered that Co-enzyme Q10 can relieve the pain of fibromyalgia through its effect on muscles. Whelehans own brand Co Enzyme Q10 is an affordable option and unlike many Co Enzyme Q10 supplements, it only needs to be taken once daily. More studies is needed to prove how beneficial omega 3, co-enzyme Q10 etc are at relieving fibromyalgia symptoms.

Relaxation techniques

As stress seems to be a contributor to fibromyalgia symptoms, various relaxation techniques such as hypnosis, tai chi, cognitive behaviour therapy and biofeedback have been shown to alleviate symptoms to a certain extent.

Acupuncture

Acupuncture involves the insertion and manipulation of solid, generally thin needles into the body at certain points. Some patients have benefitted from acupuncture but studies are unclear and therefore it is difficult to ascertain what patients it will and will not work for.

The Difference between FM and Chronic Fatigue (M.E.)?

Some health care professionals treat fibromyalgia and chronic fatigue syndrome (CFS) separately, while some think they are actually the same or variations of the same condition. Research shows that 50 to 70% of people with one diagnosis also fit the criteria for the other.

Similarities

FMS and CFS are known to have many common symptoms. These include:

- General aches and pain
- Fatigue
- Sleep disturbance
- Irritable bowel syndrome
- Chronic headaches
- Memory impairment
- Dizziness
- Reduced coordination
- Temporomandibular Joint Syndrome (Pain in the jaw joint)

Differences

One

key difference is whether pain or fatigue is worst. In general pain is worse with fibromyalgia while fatigue is worst with CFS. Experts have found some significant differences. CFS tends to begin after flu-like symptoms and may be caused to a virus. CFS patients often have high levels of a cellular antiviral enzyme called RNase L, which is not the case in fibromyalgia patients. For CFS, diagnostic criteria include low-grade fever and sore throat, while diagnostic criteria for fibromyalgia do not. For Fibromyalgia, the onset can often be traced to a physical or emotional trauma. Unlike CFS, the pain of fibromyalgia improves with heat and massage. Again, unlike CFS, people with fibromyalgia tend to have tender points and higher than normal levels of a cellular chemical called substance P, which transmits pain signals.

Life with fibromyalgia

Fibromyalgia is a chronic relapsing condition. This means it is a long term condition. Unfortunately for most sufferers, the symptoms do not improve with time and most experience symptoms lifelong. There is no generally accepted cure therefore managing the symptoms is the key to control.

Midlands Fibromyalgia Support Group

The Midlands Fibromyalgia Support Group meet the last Tuesday of every month (except December) in the Day Care Centre, Riada House, Arden Road, Tullamore, Co Offaly at 7:30pm. It is an opportunity to meet and share the experiences of fellow sufferers of fibromyalgia in the Midlands. Their helpline (Freephone 1800 20 10 68) is open every Tuesday from 10am to 1pm. Their e-mail address is mfsg@eircom.net.

More help

Frances Sills is psychologist who operates a clinic in Millmount Mullingar..

Apart from her general psychotherapy for anxiety, depression, insomnia, eating disorders etc, Frances treats patients with chronic fatigue and fibromyalgia. She specialises in the management of Fibromyalgia through motivation techniques, diet management and exercise regimes

Her approach to this is to:

- **Monitor Activity Levels (Activity diary for few weeks to see what pattern of living patients are in)**
- **Monitor Sleep Patterns - just to see how much they sleep and what quality of sleep they are getting**
- **Set target and goals which are both realistic and achievable for the patient**
- **Stabilise activity and rests - this means that it is important to PACE. PACING is the most important part of recovery in chronic fatigue syndrome**
- **Look at increase or changing activities. This takes into account the patient recognising their boundaries and keeping to them.**
- **Look at unhelpful thoughts and beliefs and challenging these**
- **Looking at 'what stress patient has in their lives' and ways of managing and resolving these.**
- **Facing fears (such as going back to work), socialising etc.**

Contact her at 0868301465 for more details. Her e-mail address is francesills@yahoo.co.uk. A consultation is €50.

She also works with Dr Joe Fitzgibbons, a consultant based in the Galway Clinic and the Hermitage Clinic. Dr Fitzgibbons specialises in managing chronic fatigue conditions including fibromyalgia and chronic fatigue syndrome. More information on him is available at www.joefitzgibbon.ie

References

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- (3) Crofford LJ, Rowbotham MC, Measse PJ, et al. Pregabalin for the treatment of fibromyalgia syndrome: results of a randomised, double blind, placebo-controlled trial. Arthritis Rheum 2005; 52:1264

Disclaimer: Please ensure you consult with your healthcare professional before making any changes recommended