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CONTINUING EDUCATION

Consultant Pharmacist Continuing Education Series

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Fatigue

Fatigue is a common complaint among older persons and may be related to many chronic conditions. Fatigue has been defined as an enduring feeling of tiredness, where the constant subjective sensation of weariness is usually not relieved by rest. The onset of fatigue is usually slow and insidious, and can have a significant impact on a person's quality of life. Fatigue is subjective and often unspecific.

Signs and symptoms

There are many signs and symptoms that people may report as fatigue, including:

- Daytime sleepiness
- Lack of energy
- Shortness of breath on exertion
- Limb weakness
- Lack of motivation

It can be challenging to differentiate between sleepiness and fatigue. Usually, people with daytime sleepiness feel better after a nap. Sleepiness is often caused by an underlying sleep disorder such as obstructive sleep apnoea. Whereas, people with fatigue report a lack of energy, mental exhaustion, poor muscle endurance, delayed recovery after physical exertion, and nonrestorative sleep.

Red flags that signal the need for immediate investigation include unintentional weight loss, abnormal bleeding, shortness of breath, unexplained enlarged lymph nodes, fever and recent onset or progression of cardiovascular, gastroenterological, neurological or rheumatological symptoms.

Causes

It can be difficult to identify a cause for fatigue; however, fatigue can be associated with many acute and chronic conditions. Lifestyle and psychological factors may precipitate fatigue. Lifestyle factors include excessive alcohol intake, substance abuse, lack of exercise, obesity and poor diet.

Acute illness such as infections may cause fatigue, but usually resolve after the event. Some viral infections are associated with long-term fatigue. These include Epstein-Barr virus (EBV) or cytomegalovirus.

Fatigue is commonly associated with many chronic conditions, including:

- Iron-deficiency with and without anaemia
- Chronic obstructive pulmonary disease (COPD)
- Thyroid disfunction
- Obstructive sleep apnoea
- Heart failure
- Malignancy
- Parkinson disease
- Severe renal impairment
- Type 2 diabetes mellitus
- Substance use disorders
- Excessive alcohol intake
- Anxiety
- Depression
- Obesity

Medication-related causes

Medications that are commonly associated with fatigue include sedative-hypnotics, antidepressants, muscle relaxants, opioids, antihypertensives (beta-blockers), antihistamines, and many types of antibiotics.

Residential Medication Management Reviews can identify medication-related causes of fatigue and provide suitable options.

Chronic fatigue syndrome

People with chronic fatigue syndrome complain of persistent fatigue and other somatic and cognitive symptoms. Fatigue for at least 6 months is required for a diagnosis of chronic fatigue syndrome and must be accompanied by at least 4 of 8 additional symptoms, including post-exertional malaise lasting more than 24 hours, unrefreshing sleep, impaired memory or concentration, muscle pain, joint pain without swelling or erythema, headache of a new type or severity, tender cervical or axillary lymph nodes, and sore throat.

People with chronic fatigue syndrome may respond to cognitive behavioural therapy. Chronic fatigue is not relieved with rest.

Iron-deficiency

Iron-deficiency with or without anaemia is a common medical cause of fatigue. Weakness and shortness of breath may also be present. Blood loss, inadequate diet and impaired iron absorption can cause iron deficiency. Iron-deficiency responds well to oral or intravenous iron supplementation.

However, the underlying cause should be investigated. A medication review can identify medicines known to increase the risk of gastrointestinal bleeding, such as NSAIDs, antiplatelets, anticoagulants, corticosteroids, and SSRI antidepressants.

Thyroid disfunction

Thyroid dysfunction increases with age and should be considered in people presenting with fatigue. Fatigue and tiredness are associated with both hypothyroidism and hyperthyroidism.

Diabetes

Fatigue is a common symptom of diabetes, but it is not limited to poorly controlled disease. Fatigue may also reflect hyperglycaemia in patients with undiagnosed and poorly controlled diabetes.

Optimal medication management is necessary for safe glycaemic control. Lifestyle optimisation with a healthy diet, physical activity, stress control and good sleep patterns may help mitigate fatigue in people with diabetes.

Chronic kidney disease

Fatigue is a commonly reported and debilitating symptom among patients with chronic kidney disease (CKD). Over 70% of people with CKD report fatigue and fatigue is associated with mortality in patients with kidney failure.

Physical activity has been shown to improve fatigue. Targeting higher haemoglobin (Hb) levels with erythropoiesis-stimulating agents may improve fatigue. Sodium bicarbonate tablets can improve functional status and muscle strength. Treatment of coexisting depression may improve fatigue in people with CKD.

Heart failure

Around 1 in 10 people over the age of 65 years have heart failure. Symptoms of fatigue are common with heart failure, along with shortness of breath and oedema. Guidelines recommend that all patients with heart failure should be tested for anaemia and iron deficiency.

Oral iron supplements are not absorbed well in people with heart failure. Intravenous iron improves functional capacity, symptoms, quality of life in patients with symptomatic iron-deficiency and heart failure. Intravenous iron replacement therapy is also associated with a significant reduction in the risk of hospitalisation for worsening heart failure.

Obstructive sleep apnoea

Obstructive sleep apnoea may cause poorly restorative sleep, lack of energy and excessive daytime fatigue. Continuous positive airway pressure (CPAP) treatment is associated with reduced fatigue, tiredness and lack of energy.

COPD

Fatigue is one of the most common and distressing symptoms experienced by people with COPD. Fatigue is people with COPD can be improved with optimal medication therapy, pulmonary rehabilitation, nutritional support and mind-body interventions.

Depression and anxiety

Depression and fatigue commonly coexist.

SSRI and SNRI antidepressants may be helpful for people with fatigue in whom depression is suspected. Tricyclic antidepressants (TCAs) such as nortriptyline and amitriptyline should be avoided due to significant anticholinergic effects.

Mirtazapine is effective for anxiety symptoms associated with depression. At low doses mirtazapine is sedating, so should be administered at night. At higher doses (30-45mg daily) the sedating effect is reduced and can be stimulating in older persons.

Palliative care

Fatigue is also a frequent and distressing symptom in palliative care. Underlying causes include pain, depression, anxiety, anaemia and heart failure. Short-term use (1 to 2 weeks) of a corticosteroid such as dexamethasone may alleviate fatigue and induce a sense of wellbeing.

Summary

Fatigue, a persistent feeling of tiredness, is common among older people. Lifestyle and psychological factors may be associated with fatigue. Treatable causes such as iron deficiency, depression, hypothyroidism and heart failure need to be identified early. Low-intensity exercise is associated with improved energy and decreased fatigue. Principles of good sleep hygiene should be discussed with residents complaining of fatigue.

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