ABC Article

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Restless Legs Syndrome: The under-recognised condition

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INTRODUCTION

Up to 15% of the adult population experiences restless legs syndrome, or Ekbom syndrome during their life [1]. The patients may present to a wide range of medical specialities such as general practitioners, general physicians, nephrologists, haematologists, obstetricians, endocrinologists, rheumatologists, and neurologists.

Around 3% of patients experience major sleep disturbance that needs active medical treatment [2,3]. Therefore, knowing about Restless Legs Syndrome (RLS) is vital to provide a proper diagnosis and treatment to patients with this condition.

DIAGNOSIS

The main symptoms of RLS are uncomfortable and unpleasant sensations in the legs. The diagnosis is a clinical one and based on the history. The following symptoms need to be identified [4,5]:

a) The urge to move the legs to relieve the uncomfortable and unpleasant sensations in the legs,
b) Symptoms get worse during periods of rest such as lying down or sitting,
c) Symptoms partially or totally relieved by movement such as walking,
d) Symptoms are worse during the evening and nighttime.

The severity of the RLS could be determined by using The International RLS Study Group Rating Scale. This scale uses 10 items with five-response levels. It covers both the symptoms and their impact [6].

Periodic limb movements (PLM) have been linked to RLS. PLM are periodic and stereotypic movements initially noted in sleep (periodic limb movements in sleep, PLMS). Each movement should last between 0.5-5 seconds with a frequency of one every 20-40 seconds. Periodic limb movement disorder (PLMD) has been attributed to the effects of the disruption of sleep by PLMS [7].

CAUSES

The majority of the cases of RLS are idiopathic. However, there are well known causes which are important to remember such as pregnancy, iron deficiency anaemia, renal failure, diabetes mellitus and hypothyroidism [8,9]. RLS might be more common in patients with Parkinson's disease and Rheumatoid arthritis [8,9].

INVESTIGATIONS

Basic blood tests are needed in patients with RLS to exclude secondary causes. Full blood count including ferritin level, biochemical profile, blood glucose, and thyroid function test are essential.

Sleep study or polysomnography are not needed to diagnose RLS except if there is uncertainty about the diagnosis or lack of response to the treatment [10]. However, polysomnography could be used to diagnosis PLM, mainly to determine the number of PLM during sleep [7].

TREATMENT

The following steps are important in treating patients with restless legs syndrome:

i) Any underlying causes, such as anaemia, have to be treated.

ii) A full explanation of RLS as well as reassurance are important for the patients to cope with the condition.

iii) Non-pharmacological approaches can be useful such as keeping cool, avoiding caffeine before bed to improve sleep and taking regular exercise.

iv) Avoid wherever possible drugs that can aggravate the symptoms of RLS such as diuretics, tricyclic antidepressants, calcium antagonists and central nervous system stimulants.

v) Patients with mild symptoms may not need drug treatment. However, levodopa was licensed for RLS in 2000 in both Germany and Switzerland. It is recommended to be used in mild RLS and could be given on demand [11].

vi) Dopamine agonists are considered to be the treatment of choice for RLS. Recently, ropinirole and pramipexole have been licensed in the United Kingdom for treatment of moderate to severe cases. Both have been shown to be effective in double-blind placebo-controlled trials [12,13]. Ropinirole has been launched under a separate brand name Adartrel®. The dose is 0.25 for days 1&2 to be increased to 0.5 mg for days 3 to 7. The dose could then be increased by 0.5 mg every week to 2.0 mg. The maximum recommended daily dose is 4 mg. The pramipexole starting dose is 0.125 mg daily, which could be increased after 4-7 days to 0.25 mg and then by 0.25 mg every week up to 0.75 mg. The dopamine agonists should be taken 1-3 hours before bedtime.

vii) If patients do not respond or could not tolerate the dopamine agonists, then clonazepam and gabapentin could be used.

viii) PLMD is usually treated similarly to RLS.

CONCLUSION

Restless legs syndrome can be a disabling condition that is easily recognised clinically. Periodic limb movements have been linked to RLS. Simple investigations are needed to exclude secondary causes and dopamine agonists are now considered to be the treatment of choice.

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