European Journal of Case Reports in Internal Medicine

Restless Chest Syndrome: A Rare Variant of Restless Legs Syndrome

Kosuke Ishizuka, Yoshiyuki Ohira
Division of General Internal Medicine, Department of Internal Medicine, St. Marianna University School of Medicine, Kawasaki-city, Japan

Doi: 10.12890/2022_003398 - European Journal of Case Reports in Internal Medicine - © EFIM 2022

Received: 18/05/2022
Accepted: 02/06/2022
Published: 06/07/2022

How to cite this article: Ishizuka K, Ohira Y. Restless chest syndrome: a rare variant of restless legs syndrome. *EJCRIM* 2022;**9**: doi:10.12890/2022_003398.

Conflicts of Interests: The authors declare there are no competing interests.

ABSTRACT

A 23-year-old Japanese woman presented with a 1-month history of dyspnoea and chest discomfort. Since the symptoms improved with dynamic and sensory stimulation and also caused insomnia, we considered a variant of restless legs syndrome (RLS) called 'restless chest syndrome', although there were no symptoms in the extremities. We initiated oral administration of pramipexole 0.25 mg daily, and her symptoms, including dyspnoea, chest discomfort and insomnia, improved within 1 week. RLS should be considered in the differential diagnosis in patients who present with abnormal sensations that worsen at night, with insomnia, regardless of the site of the symptoms.

LEARNING POINTS

- In restless legs syndrome, rare localised sensations in the chest, back, abdomen, face, arm and perineum rather than the lower extremities, have been reported.
- Dynamic stimuli, intellectual activity and sensory stimuli have been reported to temporarily ease restless legs syndrome symptoms.
- Restless legs syndrome should be considered in patients who present with abnormal sensations that worsen at night, with insomnia, regardless of the site of the symptoms.

KEYWORDS

Restless chest syndrome, restless legs syndrome

INTRODUCTION

Restless legs syndrome (RLS) is a neurological disorder classically characterized by an urge to move the lower limbs [1,2]. RLS symptoms occur during inactivity, worsen during the evening and night, and are alleviated by moving the affected limbs [1,2]. RLS primarily affects the lower extremities [1]. In rare instances, localised sensations in the chest, back, abdomen, face, arm and perineum have been reported [1]. RLS should be considered in patients who present with abnormal sensations that worsen at night, with insomnia, regardless of the site of the symptoms. We report this case to highlight a variant of RLS, and discuss the literature.

CASE PRESENTATION

A 23-year-old Japanese woman presented with a 1-month history of dyspnoea and chest discomfort. She had visited a cardiologist but electrocardiography, chest x-ray radiography and echocardiography were normal. As the cause of her symptoms was unknown, she was referred to our department. Her symptoms were persistent and aggravated when standing, sitting, in the dorsal position and on arousal at night, but were relieved by rolling over and walking. Insomnia occurred as a result of the symptoms, but was alleviated by sleeping with a cuddle pillow and moving around. There was no history of rapid eye movement sleep behaviour disorder, autonomic symptoms such as constipation and orthostatic hypotension, hyposmia, bradykinesia, tremor, hypophonia, gait changes, dysphonia, dysarthria, decreased

facial expression, depression or anxiety. Her medical history and medications were unremarkable. She had no history of smoking or alcohol consumption. Her vital signs were a temperature of 36.4°C, a pulse rate of 84 beats/minute, blood pressure of 94/48 mmHg, respiratory rate of 18 breaths/minute, and oxygen saturation (SpO2) of 98% on room air. Physical examinations were unremarkable. Neurological examination showed intact higher functions, and normal cranial nerves, muscle tone, power and reflexes. There was no bradykinesia, rigidity, tremor, hypophonia, micrographia, decreased arm swing, or short step length. There was no postural reflex disorder and Myerson's sign was negative. Laboratory tests did not show any abnormalities. Since the symptoms improved with dynamic and sensory stimulation and also caused insomnia, we considered a variant of restless legs syndrome (RLS) called 'restless chest syndrome', although there were no symptoms in the extremities. We initiated oral administration of pramipexole 0.25 mg daily, and the patient's symptoms, including dyspnoea, chest discomfort and insomnia, improved within 1 week. However, we considered the slim possibility of psychogenic disorder including anxiety disorder, because neurological examination, laboratory findings and all imaging findings were normal. Therefore, 4 weeks after presentation, pramipexole 0.25 mg daily was discontinued. However, the symptoms returned 2 days later. Five weeks after presentation, pramipexole 0.25 mg daily was re-introduced because the patient insisted on being put back on her original medication as she had returned to her original symptoms, and her condition improved the following day.

DISCUSSION

RLS commonly presents with abnormal sensations in the lower extremities. However, it may also occur in other parts of the body [1]. Depending on the site of the symptoms, restless chest syndrome, restless back syndrome, restless abdomen syndrome, restless face syndrome, restless arm syndrome, and restless perineum syndrome have all been reported [1]. Most of the causes of RLS are idiopathic, but secondary causes such as drugs, iron deficiency, chronic kidney damage, Parkinson's disease, pregnancy, rheumatoid arthritis, diabetes and peripheral neuropathy have been described [2,3]. In this case, because there was no evidence of secondary causes, we considered the condition idiopathic [2]. The pathogenesis of RLS is thought to be related to dysfunction of dopaminergic nerves and abnormalities in central iron metabolism [2]. RLS presents with extrapyramidal symptoms, which are often difficult for patients to explain, and patients' complaints are often vague and various [2]. Dynamic stimuli and activities such as walking around, as well as intellectual activities such as using a computer and sensory stimuli such as playing video games, have all been reported to temporarily ease RLS symptoms [2].

In conclusion, RLS should be considered in the differential diagnosis in patients who present with abnormal sensations that worsen at night, with insomnia, regardless of the site of the symptoms.

REFERENCES

1. Suzuki K, Miyamoto M, Miyamoto T, Hirata K. Restless "lower back" in a patient with Parkinson's disease. *Tremor Other Hyperkinet Mov (N Y)* 2013;**3**:tre-03-195-4313-2.
2. Karroum EG, Golmard JL, Leu-Semenescu S, Arnulf I. Sensations in restless legs syndrome. *Sleep Med* 2012;**13**:402–408.
3. Wong JC, Li Y, Schwarzschild MA, Ascherio A, Gao X. Restless legs syndrome: an early clinical feature of Parkinson disease in men. *Sleep* 2014;**37**:369–372.