



Leg Stereotypy Disorder: Phenomenology and Prevalence

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OBJECTIVE

To describe the phenomenology and prevalence of leg stereotypy disorder (LSD)

BACKGROUND

LSD is characterized by repetitive, rhythmical, stereotypic leg movement, especially when sitting.

Often wrongly attributed to “restlessness” or “fidgetiness” the condition is a relatively common, familial movement disorder that must be differentiated from “restless legs syndrome” (RLS) and other stereotypies.

METHODS

The primary objective of the study was to characterize LSD and determine its frequency in two groups:

1. General population (GP) group, defined as individuals accompanying patients during their visits to Baylor College of Medicine Parkinson's Disease Center and Movement Disorders Clinic who are not genetically related to the patients
2. Movement disorders (MD) group, composed of consecutive patients with diagnoses of RLS, Parkinson's disease, Tourette syndrome, and tardive dyskinesia.

All individuals were initially screened using a 10-point LSD questionnaire (LSQ), LSD Severity Rating Scale, ADHD Self-Report Scale (ASRS-v1.1) and other clinical assessments.

Participants were identified with LSD based on 6-point diagnostic criteria.

RESULTS

92 participants enrolled; 7% of 57 GP individuals and 17% of those in the MD group met the criteria for LSD.

Mean age of the LSD individuals was 44.5 (\pm 11.9) years and mean age at onset of LSD was 17.5 (\pm 5.7) years.

In half of the individuals the “shaking” involved one leg and all had a positive family history without diurnal variation.

The initially proposed 10-item LSQ was reduced to a 7-item LSQ following analyses that retained the items with the best statistical fit.

	General Population (n=57)	Movement Disorder (n=35)	<i>p</i> value
LSD (%)	4 (7.0)	6 (17.0)	0.12
Male gender (%)	0 (0)	2 (33)	0.33
Mean age (SD)	44.5 (11.9)	35.2 (15.8)	0.35
Mean age at onset of LSD (SD)	17.5 (5.75)	10.8 (5.71)	0.11
Laterality (%)			0.22
Right Leg	2 (50)	1 (17)	
Left Leg	0 (0)	3 (50)	
Both legs	2 (50)	2 (33)	
Timing (%)			---
Anytime	4 (100)	6 (100)	
Evening only	0 (0)	0 (0)	
Awareness (%)			0.87
Self	1 (25)	2 (33)	
Others	1 (25)	2 (33)	
Both	2 (50)	2 (33)	
Family History (%)			0.67
None	0 (0)	0 (0)	
1 family member	1 (25)	2 (33)	
>1 family member	3 (75)	4 (67)	
ADHD Present (%)	0 (0)	5 (83)	0.02

LEG STEREOTYPY QUESTIONNAIRE SCREENING TOOL

1. Are the movements associated with an inner feeling of restlessness or urge to move?
2. Do you try to consciously control or suppress the leg movements?
3. Do the leg movements occur anytime of the day (not just in the evening)?
4. Are the leg movements more likely to occur when you are concentrating?
5. Are the leg movements distressing, disrupting, or annoying to others?
6. Do you have swaying movements of the body when sitting or standing?
7. Do you have any close relatives with similar leg movements?

CONCLUSION

LSD is a relatively common condition, occurring in up to 7% of otherwise healthy individuals and it is more common in a movement disorders population.

Although it phenomenologically overlaps with other stereotypic disorders it is a distinct and unique neurologic syndrome.

Further studies are needed to determine its prevalence and pathophysiology, but genetic factors seem to play an important role.

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