



## SHORT NOTE

# Observations on Restless Legs Syndrome and Indications of the Cause

Melrose Truett Garrett, Jr. Sc.D.\*

Adjunct Professor, Department of Civil and Environmental Engineering, University of Houston, USA



\*Corresponding author: Dr. Melrose Truett Garrett, Jr., Sc.D., Adjunct Professor, Department of Civil and Environmental Engineering, University of Houston, 5147 Del Monte Drive, Houston, Texas 77056-4302, USA, Tel: 1-713-494-7468

### Abstract

RLS accompanying loose stool (not diarrhea) indicated two hypotheses: 1) Medications for diarrhea will relieve RLS, 2) RLS is caused by pressure in the colon blocking a femoral vein, the nervous system then causes muscle contraction in the leg. In tests both were sustained. Soluble fiber corrects loose bowels but the number of Americans with insufficient fiber is much greater than those with RLS.

### Keywords

Restless legs syndrome, RLS, Femoral vein blockage, Loose stool, Soluble fiber, Diarrhea medications

While undergoing heart catheterization through my right leg, my left thigh jerked involuntarily. Afterward the cardiologist, Dr. Philip Clay Haas, DO, who had performed the catheterization said that it was RLS, Restless Legs Syndrome, and that it was a neurological phenomenon. Dr. Peter B. Morgan, MD, of the Lone Star Vein Center describes RLA as involuntary leg movement whereas The WebMD and Wikipedia the Free Encyclopedia describe RLS as "...a strong urge to move one's legs" Thus there are two actions within RLS. At nighttime, in bed, the knee jerk is involuntary, and occurs at intervals of about twenty seconds and stronger than is possible intentionally. There have been studies of a connection between RLS and bowel problems. Borji, et al. [1] found 25.3% of a group with Irritable Bowel Syndrome had RLS in contrast to 6.5% that had RLS in the control group. The RLS Foundation cites a study showing that iron given intravenously significantly improved RLS in people with low ferritin levels.

It was usually observed that I had loose stool (not

diarrhea) whenever I had jerking of one or both legs. So the first hypothesis was:

- 1) Medications for diarrhea will relieve the jerking leg form of RLS.
- a) I find the jerking leg form of RLS is relieved by the anti-diarrhea medication, loperamide, 2 or more pills.
- b) I find RLS is relieved by Pepto-Bismol, 2 or more chewable tablets.
- c) The two support the Hypothesis.

With loose stool, pressure from the small intestine extends into the colon. So the second hypothesis was:

- 2) RLS is caused by pressure in the colon blocking the femoral vein and the nervous system responding by causing periodic strong thigh muscle contractions.
- a) Firmly stroking the inner thigh towards the body like a peristaltic pump relieves RLS so long as continued.
- b) Reduction of pressure in the colon by a bowel movement or passing gas temporarily relieves RLS.
- c) The hypothesis is supported.

The hypotheses indicate the cause of jerky leg RLS is blockage of the femoral vein (one or both legs) by pressure in the colon, and the nervous system sensing the lack of blood flow and causing a sudden contraction of thigh muscles, a neurological phenomenon. An urge to move the legs often precedes jerking and I propose it is caused by restriction of blood flow instead of blockage.

The knee jerk is not the problem, the knee jerk is salvation from the blockage of the femoral vein by

pressure in the colon. Even though this subjective case report is not enough evidence to sustain the proposed hypotheses, it can prompt other clinicians to provide similar cases and stimulate further investigations. If this is accepted, all remedies must work by reducing pressure in the colon: reducing pressure in the small intestine, pressure control by the ileocecal valve or removing water to form normal stool. Topical applications to the legs would have no effect on RLS.

“Soluble fiber can actually absorb excess fluid in the bowel and thus act to firm up a loose stool”. David Goldstein says [2] I find that if I eat sufficient soluble fiber by eating fruits, vegetables and taking supplements, I do not have RLS.

RLS affects an estimated 2.5-15% of the American population [1] whereas an estimated 95% of American adults and children do not consume recommended amounts of fiber [3]. At least the 2.5-15% with RLS can fit within the 95% with less than the recommended amount of fiber but there must be some additional rea-

son why some people with less than the recommended amount of fiber do not have RLS.

There are medications to prevent RLS at night. One is ropinirole, which was prescribed by Dr. Haas be taken at bedtime. Sometimes RLS occurred for an hour before it took effect. My family doctor, Dr. Joshua Nguyen, MD, said to take it earlier. When I did so, RLS would sometimes occur at 5 or 6 AM.

## References

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