


Management of Restless Legs Syndrome using the Mulligan Traction Straight Leg Raise: A Pilot Study


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Objectives

- Define RLS and prevalence/epidemiology
 - Theory for RLS and Research based approach for choosing Traction Straight Leg Raise
 - Methodology and Trends
 - Final Comments
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What is RLS??

- Restless Legs Syndrome or RLS affects approx 3 percent to 10 percent of the U.S. population
 - Typically an urgency to move, especially in the evening, usually due to uncomfortable sensations that occur primarily in the legs, but occasionally in the arms or elsewhere
 - Men and women are affected equally
 - Phillips B. Epidemiology of Restless Legs Syndrome in adults. Arch Intern Med 2000; 160:2137-41
 - Ohayon MM. Prevalence of restless legs syndrome and periodic limb movement in the general population. J Psychosom Res 2002; 53:547-54.
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- The sensations are unusual and unlike other common sensations, and those with RLS have a hard time describing them
 - People use words such as: uncomfortable, "antsy", electrical, creeping, painful, itching, pins and needles, pulling, creepy-crawly, ants inside the legs, and many others
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- RLS is considered primarily idiopathic, or with no known cause
 - Primary RLS usually begins before approximately 40 to 45 years of age, but can even occur as early as adolescence
 - In primary RLS, the onset is often slow. The RLS may disappear for months, or even years. It is often progressive and gets worse as the person ages
 - Secondary RLS are symptoms that are explainable sequelae of another primary disease
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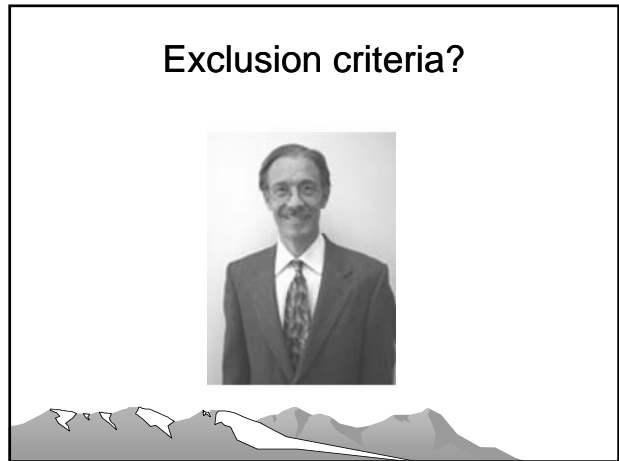
Theory on Causes

- Primary theory of cause of idiopathic RLS is "restricted flow"
 - RLS symptoms could present as the effect of environmental, structural or nutritional influences on neural, musculo-skeletal, vascular and/or connective tissues that create irritation or restriction of normal processes of these tissues
 - Neural mobilization could improve "restriction"
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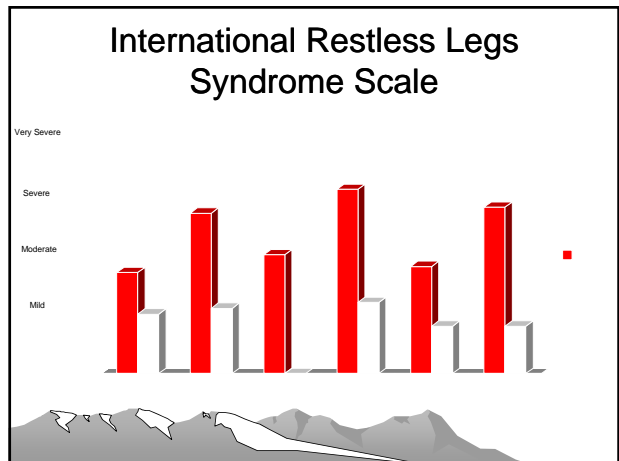
• Ideas for this research study were initiated based on anecdotal experiences from subjects being treated for LBP using the traction straight leg raise technique (tSLR), as well as Toby Hall's investigations and published articles on this topic encouraged research and theory behind choice of tSLR for study

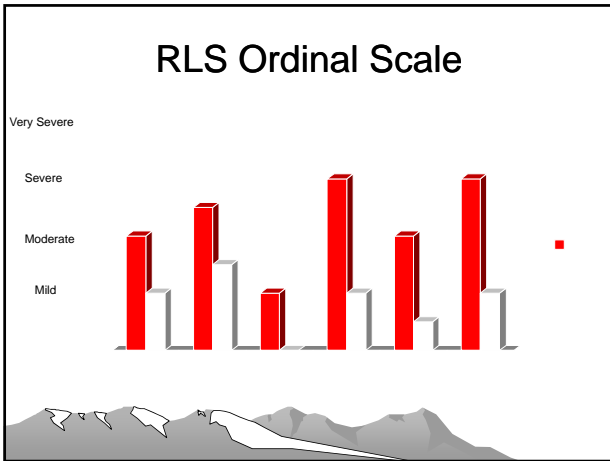
- ### Criteria for Involvement
- **Inclusion Criteria:**
 - Diagnosis of RLS by a Board Certified Physician
 - No prior knowledge of the Mulligan tSLR technique
 - Primary English speaking
 - **Exclusion Criteria:**
 - Vulnerable populations
 - Pregnancy
 - LBP
 - Previous Surgery involving the lower extremity or back in the past 12 months
 - Spinal cord injury
 - Peripheral vascular disease
 - Pathologic/Secondary RLS
 - Inability to relax the lower extremity during the treatment
 - Not involved in a Compensation case of any kind

Exclusion criteria?



- ### Methodology
- 5 treatments over 4 weeks
 - Subject HR/BP taken after 5 minute rest
 - Standardized treadmill warm up given
 - Pre-test measures taken including questionnaires
 - Traction leg raise administered- 3 groups of 3 repetitions bilaterally with patient in full supine
 - Post-test measures





Global Rating of Change Questionnaire

A Very Great Deal Better
A Great Deal Better
Quite a Bit Better
Moderately Better
Somewhat Better
A Little Bit Better
A Tiny Bit Better (Almost the Same)

Post Treatment GRC

Subject 1	Somewhat Better
Subject 2	Moderately Better
Subject 3	A Very Great Deal Better
Subject 4	Quite a Bit Better
Subject 5	Moderately Better
Subject 6	A Very Great Deal Better

- ### Final Comments
- Possible trend toward management of RLS symptoms with tSLR technique
 - Limitations to study
 - Limited referral sources
 - Small community size
 - Not a RCT
 - Bias'
 - Need for further research
 - Encouragement for CMP's and others to get involved in this area of study and share preliminary data
 - Eric.Dinkins@selectmedicalcorp.com
 - Special Thanks to Jennifer Stevens-Lapsley, MPT, PhD, Toby Hall, Dr. Hing, Select Physical Therapy

Questions?