

Supplemental table 1. Diagnostic support tool for lumbar spinal stenosis: SSHQ

Item

- Q1: Numbness and/or pain in the thighs down to the calves and shins.
 - Q2: Numbness and/or pain increase in intensity after walking for a while, but are relieved by taking a rest.
 - Q3: Standing for a while brings on numbness and/or pain in the thighs down to the calves and shins.
 - Q4: Numbness and/or pain are reduced by bending forward.
 - Q5: Numbness is present in both legs.
 - Q6: Numbness is present in the soles of both feet.
 - Q7: Numbness arises around the buttocks.
 - Q8: Numbness is present, but pain is absent.
 - Q9: A burning sensation arises around the buttocks.
 - Q10: Walking nearly causes urination.
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SSHQ: Self-administered, Self-reported History Questionnaire

Supplemental table 2. Sensitivity analyses

a. Analysis of changing the definition of LSS with new cutoff values (n = 266)

Definition of LSS	(-) LSS ^a	(+) LSS	<i>P</i> value
	n = 133	n = 133	
	n (%)	n (%)	
Sleep disorder onset in 2010			
LSS-DST ^{b, 15}	6 (4.5)	19 (14.3)	< 0.01
new cutoff values of LSS-DST ¹⁸	8 (6.3)	18 (14.1)	< 0.05

^a LSS: Lumbar spinal stenosis

^b DST: Diagnostic support tool

b. Analysis of change in the definition of sleep disorder (n = 266)

Definition of sleep disorder onset in 2010	(-) LSS ^a	(+) LSS	<i>P</i> value
	n = 133	n = 133	
	n (%)	n (%)	
A	6 (4.5)	19 (14.3)	< 0.01
B	19 (14.3)	29 (21.8)	< 0.11

^a LSS: Lumbar spinal stenosis

A. Participants who answered "yes" to the question "Have you seen a health care provider for a sleep disorder in the past month?"

B. Participants who answered "fairly poor" or "very poor" to the question "How would you rate the overall quality of your sleep over the past month?"

Supplemental table 3. Analysis of sleep disorders in 2008

Diagnosis	Number (Includes duplicates)
Insomnia	115
Sleep apnea syndrome	19
Sleep-wake disorder	4
Restless leg syndrome	3
REM ^a sleep behavior disc	0
Narcolepsy	0
Hypersomnia	0
Others	73
Unknown	305
Total	353

^a REM: rapid eye movement