S1 Table. Diagnostic criteria for LEMS

A	Symptoms	
	1	Proximal muscle weakness
	2	Autonomic symptoms
	3	Attenuated deep tendon reflex
B	Laboratory findings	
	1	Blood and biochemical laboratory findings
		Anti-P/Q-type voltage-gated calcium channel antibody positive
	2	Electrophysiological findings
		Abnormality of repetitive nerve stimulation tests
		1) Reduction of first complex muscle action potential (CMAP) amplitude
		2) Reduction of CMAP (waning) (> 10%) in low-frequency stimulation (2-5 Hz)
		3) CMAP escalation (waxing) (1.6 times or more) after maximum muscle contraction for 10 seconds or after high-frequency stimulation (50 Hz)
C	Differential diagnosis	
	Differentiate the following diseases:	
		Myasthenia gravis, myositis, Guillain-Barre syndrome, chronic inflammatory demyelinating polyradiculoneuropathy, amyotrophic lateral sclerosis, botulism, organophosphate poisoning
Diagnosis criterion		
Definite	D1: Two or more items from A (one is necessary) + B1 + all B2 items, and diseases of C are excluded.	
	D2: Two or more items from A (one is necessary) + all B2 items, and diseases of C are excluded.	
Probable	Two or more items from A (one is necessary) + B1 + at least one from B2 and diseases of C are excluded.	

Diagnose as Lambert-Eaton myasthenic syndrome when patients satisfied Definite or Probable criteria

S2 Table. The number of medical departments included in the survey

Department	Total Number in Japan	Included in the Survey
Neurology	2024	719
Internal Medicine	7419	1544
Pediatrics	2468	848
Surgery	4656	1091
Neurosurgery	2384	834
Respiratory Surgery	652	397
Cardiovascular Surgery	853	476
Ophthalmology	2311	852
Otolaryngology	1845	784
Total Number	24812	7545

S3 Table. The patient record for the second survey

Patient number [ ]			
Initial _ : _ (optional)	Sex: 1. Male 2. Female	Birthday: Age: year-old	
Residence	At birth: ( )	Current: ( )	
Estimated onset year and month:		First consultation date:	
Confirmed diagnosis date:		Medical institution diagnosed:	
Clinical symptoms			
Initial symptoms: 1. Proximal muscle weakness, 2. Autonomic symptoms, 3. Attenuation of deep tendon reflex, 4 Others ( )			
Current symptoms: 1. Proximal muscle weakness, 2. Autonomic symptoms, 3. Attenuation of deep tendon reflex, 4 Others ( )			
Cerebellar symptoms: 1. Yes, 2. No			
Current living situation 1. Working, 2. Go to school, 3. Domestic labor, 4. Home care, 5. Hospitalization, 6. Admission, 7. Others ( )			
Laboratory findings			
Anti- P/Q-type voltage-gated calcium channel antibody 1. Positive (pmol/L), 2. Negative, 3. Not tested, 4. Unknown Abnormality in repetitive nerve stimulation test ① Decrease in the amplitude of the first complex muscle action potential (CMAP) 1. Positive, 2. Negative, 3. Not tested, 4. Unknown ② Gradual decrease phenomenon (waning) (> 10%) in low-frequency stimulation (2 to 5 Hz) 1. Positive, 2. Negative, 3. Not tested, 4. Unknown ③ CMAP gradual increase phenomenon (waxing) (1.6 times or more) after maximum muscle contraction for 10 seconds or after high-frequency stimulation (20 to 50 Hz) 1. Positive, 2. Negative, 3. Not tested, 4. Unknown History/complications (previous/complications observed throughout the course including before onset: ○, yes; ×, none; △, unknown)			
Autoimmune disease 1. Rheumatoid arthritis ( ), 2. Hashimoto's disease ( ), 3. Basedow's disease ( ), 4. Systemic erythematosus ( )			
5. Other autoimmune diseases ( )			
Surgical approach 1. Transsternal (a. Simple, b. Extended), 2. Video-assisted, 3. Others ( ), 4. Unknown			
Neoplastic disease 1. Small cell lung carcinoma, ( ) 2. Other cancers (type:)			
Treatments performed so far (Please circle all the treatment numbers and symbols and fill in the necessary information) 1. 3,4-DAP 2. ChE inhibitor 3. Oral steroids. Types of steroids (a. Prednisolone, b. Others:) Maximum dose (mg/day), current dose (mg/day) (in case of alternate-day administration, enter the average dose) 4. Immunosuppressive drug ( ), current dose (mg / day) 5. Steroid pulse, 6. Blood purification therapy (a. Simple plasma exchange, b. Immunoadsorption method, c. Double membrane filtration method), 7. Intravenous immunoglobulin therapy			
Family onset of Lambert-Eaton myasthenic syndrome 1. Yes (relationship:), 2. No, 3. Unknown Other autoimmune diseases 1. Yes (type:) (relationship:), 2. No, 3. Unknown.			
Outcome/ Prognosis	Length of hospital stay: _____ months Final condition: after _____ months of onset, modified Rankin Scale: 0, 1, 2, 3, 4, 5, 6 Exacerbation: 1. Yes, 2. No, Death: 1. Yes, 2. No, Cause of death: 1. LEMS, 2. Others ( )		

S4 Table. Comparison of frequencies of initial and current symptoms

	Initial symptom n = 30	Current symptom n = 30	p-value (Fisher's exact test)
Proximal muscle weakness, n (%)	27 (90.0)	24 (80.0)	0.0936
Autonomic nervous symptom, n (%)	3 (10.0)	7 (23.3)	0.1276
Decreased deep tendon reflexes, n (%)	6 (20.0)	12 (40.0)	0.6599