

TABLE E-1 Detailed Descriptions of Twenty Patients Who Had Electrophysical Changes*

Case	Age (yr)	Diagnosis	Comorbidity	Operation	Identifiable Exposure	Taken Action	Recovery of Electrophysical Signals to Normal	Neurologic Outcome
Permanent Drop in MEP and/or SSEP								
1	12	Kyphosis	Neuromuscular	PSF&I: T1-S1	Direct cord trauma	Known mechanical event	No (SSEP improved)	Unchanged
2	17	Idiopathic	None	PSF&I: T2-L3	Curve correction	Curve correction relaxed	No (SSEP improved)	Neurologic event†
3	16	Neurogenic	Neuromuscular, severe cerebral palsy	PSF&I: T1-pelvis	Curve correction	Hypotension reversed	No	Unchanged
4	17	Kyphosis	Neuromuscular, severe cerebral palsy	PSF&I: T3-sacrum, ASF: T5-T12	Curve correction	Hypotension reversed	No	Unchanged
Transient Loss of MEP and SSEP								
5	18	Idiopathic	Cardiopulmonary	PSF: T2-L3	Hypotension	Hypotension reversed	Yes	Unchanged
6	15	Idiopathic	None	PSF&I: T2-L4	Curve correction	Curve correction relaxed	Yes	Unchanged
Transient Drop in MEP								
7	12	Spondylolisthesis	Anatomic	PSF&I: L4-L5	Pedicle-screw canal breach	Pedicle-screw correction	Yes	Neurologic event‡
8	20	Neurogenic	Neuromuscular	PSF: T5-L3	Curve correction	Curve correction relaxed	Yes	Unchanged
9	17	Congenital	Cardiopulmonary	PSF: T2-L3	Curve correction	Curve correction relaxed	Yes	Unchanged
10	15	Congenital	Cardiopulmonary	PSF: T2-L3	Curve correction	Curve correction relaxed	Yes	Unchanged
Transient Loss of SSEP								
11	14	Congenital	Cardiopulmonary	PSF: T2-pelvis	Curve correction	Blood pressure increased	Yes	Unchanged
12	13	Neurogenic	Cardiopulmonary	PSF: T1-pelvis	Hypotension	Hypotension reversed	Yes	Unchanged
False-Positive Electrophysical Changes								
13	16	Idiopathic	None	PSF: T5-L1	Technical error	Leads repositioned	Yes	Unchanged
14	10	Neurogenic	Neuromuscular	PSF&I: T2-pelvis	Paralytic agent	Paralytic agent reversed	Yes	Unchanged
15	10	Congenital	Cardiopulmonary	Hemivert. resection, PSF&I: T12-L2	Paralytic agent	Paralytic agent reversed	Yes	Unchanged

16	15	Kyphosis	None	Revision PSF&I: T2-L3	Paralytic agent	Paralytic agent reversed	Yes	Unchanged
17	10	Neurogenic	Cardiopulmonary	PSF: T2-L3	Paralytic agent	Paralytic agent reversed	Yes	Unchanged
18	13	Idiopathic	Cardiopulmonary	ASF: T8-L1, PSF: T3-L4	Paralytic agent	Paralytic agent reversed	Yes	Unchanged
19	17	Idiopathic	None	ASF&I: T11-L3	Paralytic agent	Paralytic agent reversed	Yes	Unchanged
20	14	Idiopathic	None	PSF: T1-L1	Paralytic agent	Paralytic agent reversed	Yes	Unchanged

*MEP = motor evoked potentials, SSEP = somatosensory evoked potentials, PSF = posterior spine fusion, I = instrumentation, and ASF = anterior spine fusion. †Left lower-limb weakness and sensory deficits immediately postoperatively. Normal findings on neurologic examination five days postoperatively. ‡L5 radiculopathy.