

Table S1. Qualitative fieldnotes of sensory abnormality self-reported with QST parameters.

Note: a1, ipsilateral area; a2, contralateral area; a3, target area; CDT, cold detection threshold; CPT, cold pain threshold; DMA, dynamic mechanical allodynia; HDT, heat detection threshold; HPT, heat pain threshold; MDT, mechanical detection threshold; NA, not applicable; On, the spinal cord stimulator was activated; Off, the spinal cord stimulator was deactivated; PPT, pressure pain threshold; TSP, mechanical temporal summation of pain; VDT, vibration detection threshold.

Allodynia		
	Fieldnote	Patient ID (neurostimulator status: area tested)
CDT	When the cold sensation appeared, the patient felt a painful sensation.	05(Off:a2a3, On:a2), 08(Off:a2), 18(On:a2a3), 27(On:a3)
	The patient was in too much pain to complete the test.	08 (On:a3)
CPT (unpainful phase)	Not applicable	
HDT	The patient felt a painful sensation added to the heat sensation.	03 (Off:a2a3), 05(Off:a3, On:a3), 28(Off:a3), 10(Off/On:a3), 18(On:a2a3),
	The patient felt a painful sensation during the stimulation.	35(On/Off:a3)
	The patient was in too much pain to complete the test.	44(Off:a2a3)
HPT (unpainful phase)	Not applicable	
MDT	Feel painful sensation.	32(Off:a3), 35(On:a3), 43(On:a3), 46(On:a3), 50(On:a2)
	Feels burning and pinching sensation during stimulation.	02 (On:a3), 03 (Off:a2)
VDT	The patient experienced a painful sensation that appeared gradually.	03 (Off:a3), 27 (Off:a2a3, On:a3)
	An intensely painful sensation that appeared unexpectedly.	04 (Off:a2a3)
DMA	Positive test to allodynia (VAS score ≥ 10)	03 (Off:a2a3),:08 (Off:On:a3), 17(Off:a3),:18 (Off:a2a3), 32(Off:a3), 33(On:a3),:46(Off:On:a3)
	The patient was in too much pain to complete the test.	32(Off:a3)

PPT (unpainful phase)	Not applicable	
	Hyperesthesia	
	Fieldnote	Patient ID (neurostimulator statut: area tested)
CDT	More sensitive compared to the contralateral area.	04 (Off:a3),:09(Off:a3),:10(On/Off:a3),:18(On:a3), 27(On:a3)
CPT (unpainful phase)	None	
HDT	More sensitive compared to the contralateral area.	10(On/Off:a3)
HPT (unpainful phase)	None	
MDT	The participant was still able to feel the lowest monofilament force (0.008g).	49(On:a1)
VDT	None	
DMA	More sensitive compared to the contralateral area.	28(Off:a3), 47(On:a3)
PPT (unpainful phase)	None	
	Hypoesthesia	
	Fieldnote	Patient ID (neurostimulator statut: area tested)
CDT	Less sensitive compared to the contralateral area.	01 (Off:a3), 03 (On:a3), 09(On:a3), 18(Off:a3), 20(Off:a3), 22(Off:a2), 24(On:a3), 32(Off:a3),
	The temperature did not decrease gradually.	21(On:a2a3), 26(Off:a3), 32(Off:a3), 53(On:a2a3),
CPT (unpainful phase)	The patient barely felt a cold sensation.	02 (On:a3)
	The temperature did not decrease gradually.	03 (Off:a3), 24(Off:a3), 30(Off:a1a3), 38(On:a3), 43(Off:a3), 46(On:a3), 52(Off:a3, On:a1a2a3), 54(Off:a3), 55(Off:a2a3, On:a3)
	Less sensitive compared to the contralateral site.	20(Off:a3), 24(On/Off:a3), 46(Off:a3)
	Difficulty to perceive a cold sensation	53(Off:a2a3)
HDT	Less sensitive compared to the contralateral site.	11 (On/Off:a3), 22(Off:a2), 36(Off:a3)
	The temperature did not increase gradually (plateau or stairs).	26(On:a3), 30(Off:a1a3, On:a3), 38(On/Off:a2), 42(On:a2), 43(Off:a3)

HPT (unpainful phase)	The temperature did not increase gradually	02 (On/Off:a3), 03 (OnOff:a2a3), 11(On/Off:a3), 26(Off:On:a2), 30(Off:a1a3, On:a3), 32(On/Off:a2a3), 36(Off:a2a3, On:a3), 43(Off:a3, On:a2a3), 44(Off:a2a3), 52(Off:On:a2a3), 53(On:a1a2a3)
MDT	Less sensitive compared to the contralateral area	01 (Off:a3), 05 (On:a3), 18 (On/Off:a2), 28(On/Off:a3), 29(On/Off:a3), 42(On:a3), 46(Off:On:a3), 52(Off:On:a3)
VDT	It took more vibration stimulation to feel the sensation compared to the contralateral area.	01 (On:a3), 10(Off:a3), 15(On/Off:a3), 17(On/Off:a3), 24(On:a3), 29(Off:a3), 30(Off:a3), 38(On/Off:a2)
	The vibration sensation did not increase gradually.	26(On:a2a3), 35(Off:a2)
DMA	Less sensitive compared to the contralateral site.	01 (On:a3), 03 (On:a3), 05(On:a3), 10(On:a3), 32(On:a3), 35(Off:a3), 53(On:a3)
PPT (unpainful phase)	Pressure increased not gradually.	15(Off:a3), 32(On/Off:a2a3),
Anesthesia		
	Fieldnote	Patient ID (neurostimulator statut: area tested)
CDT	No sensation reported.	11 (On/Off:a3),
CPT (unpainful phase)	No sensation reported.	02 (Off:a2a3), 11 (On/Off:a3)
HDT	No sensation reported.	29(On:a3)
	The patient felt the presence of the thermode, but did not feel the heat.	24(On/Off:a2)
HPT (unpainful phase)		
MDT	No sensation reported.	02 (Off:a3), 11(On:a3)
VDT	No sensation reported.	01(Off:a3), 02 (On:a3), 16(Off:a3), 28(On/Off:a2a3), 29(On:a3), 37(Off:a2a3), 45(Off:a2a3, On:a3), 48(On:a2a3), 50(Off:a2a3, On:a3), 53(On/Off:a2a3)
DMA	The patient did not feel the movement of the brush on the skin.	01 (Off:a3), 02 (On:a3), 02 (Off:a3), 11(On:a3), 29(Off:a3), 38(On:a3), 43(On/Off:a2a3)
PPT (unpainful phase)	No sensation reported.	48(On:a2), 02 (Off:a2)
Dysesthesia		
	Fieldnote	Patient ID (neurostimulator statut: area tested)

CDT	The patient felt a burning sensation during the stimulation.	05 (Off:a2a3, On:a2),
	The patient felt a stinging sensation during the stimulation.	08 (Off:a2, On:a3), 18(On::a2a3), 27(On:a3),
CPT (unpainful phase)	None	
HDT	Painful pinprick sensation added to the sensation of heat.	35(On/Off:a3)
	Burning sensation.	03 (Off:a2a3), 05(Off:a3, On:a3), 10 (On/Off:a3), 28(Off:a3), 44(Off:a2a3)
	Stinging sensation	18 (On:a2a3)
HPT (unpainful phase)		
MDT	Muscle spasms.	46(On:a3)
	Pinprick sensation	02(On:a3), 03(Off:a2), 32(Off:a3), 35(On:a3), 43(On:a3), 50(On:a2)
VDT	Burning sensation.	03 (Off:a3)
	Électrical shock.	04 (Off:a2a3)
	Muscle cramp.	04 (Off:a3)
	muscle spasms.	46(Off:a2a3)
DMA	The brush generated muscle spasms.	46(Off:a3, On:a2a3)
PPT (unpainful phase)	None	
CPT	Burning sensation.	05 (On/Off:a2a3)
	Painful sensation that irradiates in the foot	09(Off:a3), 04 (On:a3), 11(On:a3), 26(Off:a3), 27(On/Off:a3)
	Electrical Shock.	11(Off:a3)
	Painful muscle spasms	48(On:a2a3), 54(Off:a2)
HPT	Painful electrical shock sensation.	08 (On:a3),
PPT	Burning sensation	03 (Off:a2a3),
	Pain radiating in the leg.	28(Off:a2),
	The patient perceived that the stimulus was prolonged/maintained.	05 (Off:a3),
	Painful sensation that radiates in the leg.	27(Off:a3), 43(Off:a3),

Mechanical-TSP	The number of trials was reduced because the participant reported too much pain after the trial.	43(Off:a2),
	Painful muscle spasms	46(On:a2),
	The number of trials was reduced because the participant reported too much pain after the trial.	53(Off:a1, On:a2),
Paresthesia		
	Fieldnote	Patient ID (neurostimulator statut: area tested)
CDT	The partient felt a painless tingling sensation during the stimulation.	04 (On:a3),
	The patient felt a heat sensation instead of cold.	19 (On:a3)
	The patient felt a numbness sensation during the stimulation.	28(Off:a3), 53(Off:a3)
CPT (unpainful phase)	None	
HDT	Painless tingling sensation during the stimulation.	04 (On:a3)
	Numbess sensation	53(Off:a3), 55(On/Off),
HPT (unpainful phase)	the patient felt a sensation of heat instead of a sensation of cold.	19 (On:a3)
MDT	The patient felt a touch sensation when there is no stimulation.	05 (Off:a1a2a3, On:a3), 09(Off:a2a3), 11(On:a1a2), 43(Off:a2a3), 48(off:a3), 49(Off:a1a2a3)
	Cold sensation	50(On:a1)
	The patient perceived that the stimulus was prolonged/maintained.	10 (Off:On:a3)
VDT	Felt heat.	33(Off:a2a3), 53(Off:a3)
	The patient perceived that the stimulus was prolonged/maintained.	27(Off:a2)
DMA	Water flow sensation	16 (On/Off:a3)
	Not painful, but unpleasant sensation	18(On:a3), 50(On/Off:a1a2a3)
	Numbness sensation.	26(Off:a3)

	The patient felt two stimulation while the brush touched the skin only one time.	32(:Off:a2)
PPT (unpainful phase)	None	
CPT	Painless tingling sensation	04 (On:a3), 09(Off:a3), 08 (On:a3),:32(On:a2)
	Heat sensation	33(On:a2a3)
HPT	Painless tingling sensation that irradiates in the foot.	04 (On:a3)
	Tingling sensation.	09(Off:a3), 09(On:a3)
	Sensation that heat is spreading like an ink spot.	10 (On:a3),
	Incorfortable sensation that irradiates in the foot	27(Off:a2a3, On:a3),
	The participant reported an unpainful abnormal sensation in a different area than the one tested	04 (On:a3), 27(Off:a2a3, On:a3),
PPT	Painless tingling sensation that irradiates in the foot.	04 (Off:a3)
	Numbness sensation.	27 (On:a3),
	The participant reported an unpainful abnormal sensation in a different area than the one tested	04 (Off:a3)
Mechanical-TSP	The patient felt an unpleasent painless sensation	54(On:a2),
	Analgesia	
	Fieldnote	Patient ID (neurostimulator statut: area tested)
CPT	No painful sensation reported.	01(Off:a3), 02(Off:a2a3), 11(On:a3), 15(Off:a3), 16(Off/On:a1a2a3), 20(Off/On:a1a2a3), 24(Off/On:a1a2a3), 28(Off/On:a2a3), 29(On:a3), 30(On:a1a3), 31(Off/On:a1a2a3), 33(On:a2), 36(On:a3), 37(Off:a3), 39(On:a2a3), 42(Off:a1a3), 43(Off/On:a3), 44(Off/On:a1a2a3), 45(Off/On:a2), 46(Off:a1a3, On:a1a2a3), 47(Off/On:a1a2a3), 48(Off:a2a3), 49(On:a2a3), 50(Off:a2a3), 51(Off:a1a3), 52(Off:a2a3), 53(Off:a2a3), 54(Off:a2a3), 55(Off:a2a3), 56(Off:a2a3), 57(Off:a2a3), 58(Off:a2a3), 59(Off:a2a3), 60(Off:a2a3), 61(Off:a2a3), 62(Off:a2a3), 63(Off:a2a3), 64(Off:a2a3), 65(Off:a2a3), 66(Off:a2a3), 67(Off:a2a3), 68(Off:a2a3), 69(Off:a2a3), 70(Off:a2a3), 71(Off:a2a3), 72(Off:a2a3), 73(Off:a2a3), 74(Off:a2a3), 75(Off:a2a3), 76(Off:a2a3), 77(Off:a2a3), 78(Off:a2a3), 79(Off:a2a3), 80(Off:a2a3), 81(Off:a2a3), 82(Off:a2a3), 83(Off:a2a3), 84(Off:a2a3), 85(Off:a2a3), 86(Off:a2a3), 87(Off:a2a3), 88(Off:a2a3), 89(Off:a2a3), 90(Off:a2a3), 91(Off:a2a3), 92(Off:a2a3), 93(Off:a2a3), 94(Off:a2a3), 95(Off:a2a3), 96(Off:a2a3), 97(Off:a2a3), 98(Off:a2a3), 99(Off:a2a3), 100(Off:a2a3)
	The patient felt a cold sensation, but I did not feel pain. "I am not able to detect painful sensation."	02 (On:a2a3),:10(On/Off:a1a2a3)
HPT	No painful sensation reported.	01 (Off:a3), 19(On:a3), 28(Off:a3, On:a1), 29(Off:a3), 46(Off:a3, On:a1a3), 47(Of::a1), 49(On:a3), 52(Off:a1),

PPT	No painful sensation reported.	24(Off:a2, On:a2a3), 39(Off/On:a2a3), 47(On:a2), 52(On:a3)
Mechanical-TSP	No painful sensation reported.	01(Off:a3), 02(On:a3), 20(Off/On:a1a2a3), 24(Off:a3, On:a2), 28(Off/On:a1), 29(Off/On:a3), 30(On:a1a2a3), 31(Off/On:a1), 32(Off/On:a1a2, On:a3), 33(Off:a1, On:a1a2), 38(On:a1), 40(On:a3), 42(Off/On:a1a2a3), 46(Off:a1a2a3, On:a1), 47(Off/On:a1a2a3), 48(Off/On:a1a2a3), 49(On:a1), 50(Off:a1a2a3, On:a1a3), 51(Off/On:a1a2a3), 52(Off/On:a1a2a3), 53(Off/On:a1a2a3), 43(Off:a1a2, On:a1a2a3)
	The pateint reported to feel the neuropen just a little bit.	
	The patient did not feel the sensation of neuropen movement.	11(On:a3),
Hyperalgesia		
Fieldnote		Patient ID (neurostimulator statut: area tested)
CPT	When compared to the contralateral site, the painful sensation is more intense.	01 (On:a3), 03 (On:a3), 09(Off:a3), 47(On:a3)
	Painful cold sensation appeared suddenly and intensely.	03 (Off:a3), 10 (On/Off:a3), 35(On:a3), 48(Off:a1), 55(On:a1a2)
	Pain sensation appeared intensely.	05 (On/Off:a2a3),:18 (On/Off:a2a3)
	Too painful to complete the test.	08 (On:a3)
HPT	Painful sensation more intense compared with the contralateral site.	01 (On:a3), 04 (Off:a3), 10(Off:a3),
	Pain heat sensation appeared suddenly and intensely.	02 (On/Off:a3), 03 (On:a2a3), 11(On/Off:a3), 26(Off:a3), 44(Off:a2a3),
	Burning sensation appeared intensely.	05 (On/Off:a2a3),:08 (On:a3), 43(Off:a3),
	Too painful to complete the test.	08 (On/Off:a3), 22(Off:On:a2a3),
	Intense painful sensation compared to the other area tested.	09(On:a3), 18 (Off:a2a1, Ona3), 45(Off:a3), 49(Off:a3),
	The number of trials was reduced because the participant reported too much pain after the trial.	22(Off:On:a2a3),

PPT	Painful sensation more intense compared with the contralateral site.	03 (On:a3), 05(Off:Ona3), 18(Ona3), 20(On:a3), 48(Off:a2),
	Painful sensation appears suddenly and intensely.	04 (Off:a2a3), 15(Off:a3), 32(On/Off:a2a3), 37(Off:a3), 47(On:a3),
	Too painful to finish the test.	17(Off:a3),
Mechanical-TSP	Intense painful sensation compared to the ipsilateral site.	04 (Off:a2a3),
	The patient reported a painful sensation more intense compared to the contralateral site.	04 (On:a3), 09(On/Off:a3), 10(On/Off:a3), 18(Ona3),
	Too painful to complete the test.	08 (Off:On:a3), 17(Off:a3), 33(On:a3, Off:a2a3), 46(On:a3),
	The number of trials was reduced because the participant reported too much pain after the trial.	27(Off:On:a2a3), 32(Off:a3), 33(On/Off:a3), 46(On:a2a3),
Hypoalgesia		
Fieldnote		Patient ID (neurostimulator statut: area tested)
CPT	It takes more stimulation to feel a painful sensation compared to the contralateral site.	15(On:a3), 37(On:a3)
HPT	None	
PPT	None	
Mechanical-TSP	None	