

Author and year	Study Design	Indication	Participant Number	Demographic	Follow Up	Efficacy Analysis Modality	Summary of Efficacy Results	Summary of Safety results
Lynch et al 2011	Case study	C2 dermatomal postherpetic neuralgia	1	80 year old male	6 months		Pain reduced to 20% of baseline level.	
Deer et al 2013	Prospective case series	Mixed, but largely radiculopathy	10	5 males (aged 52 ± 5) and 5 females (aged 39 ± 4)	3-7 days	VAS, 11 point Likert scale and a 7-point global impression scale completed by clinician	The average reduction in pain was 70% (n=8), with 7/8 of patients experiencing at least a 30% reduction in pain, and 6/8 patients experiencing at least a 50% reduction in pain.	17 events reported – 3 classed as adverse events
Schu et al 2014	Retrospective case series	Mixed, post-herniorrhaphy	29		27.8 ±4.3 weeks	VAS	25/29 patients had at least	

		being the best represented indication (13/29 patients)					<p>50% reduction in VAS score during their trial. Between baseline (N=25) and follow up (N=23) pain improved by an average of 71.4%. 19/23 patients had at least a 50% improvement and 11/23 had at least an 80% improvement at final follow up.</p> <p>13 patients were followed up for 6 months or longer and experienced a mean improvement of 67.5%.</p>	
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							10/13 patients had at least a 50% improvement and 7/13 had at least an 80% improvement at last follow up (42.5 weeks average).	
Zuidema et al 2014	Retrospective case series	Neuropathic pain following herniorrhaphy (patient 1), Lichtenstein hernioplasty (patient 2) and deep vein thrombosis (patient 3)	3	36 year old male, 39 year old female and 46 year old female respectively	3 months, 2 months, 2 months respectively	VAS	VAS score decreased from 90mm to 0mm, 90mm to 10mm and 95mm to 10mm respectively	
Liem et al 2014	Prospective case series	Mixed, 8/32 patients had FBBS and 8/32 had CRPS	51 patients were trialled, and 32 fitted with permanent implants	27 females and 24 males with an average age of 54.3 years	12 months	VAS, ED-5D-3L VAS, Profile of Mood States, BPI pain index, MPQ, 11-point Likert scale of	39/51 (77%) of subjects had >50% reduction in VAS after a 3-30 day trial (average pain relief of	86 safety events in 29 subjects, half related to device. 12 (15%) temporary motor

						patient satisfaction	74.2%). Non-responders had an average pain relief of 5.0%. At 12 months responders reported an average pain relief of 56.3%. Foot pain was most likely to improve (88% of subjects achieved at least 50% reduction in VAS) and tended to improve more than pain in other sites (79.5% average reduction in VAS). 7 participants had devices explanted and	stimulation; 7 (9%) cerebrospinal fluid leak with headache; 7 (9%) infection.
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							were excluded from follow up.	
Garg et al 2015	Case report	CRPS – distal upper extremity	1	43 year old female	1 week	VAS	70% pain relief	
Eldabe et al 2015	Retrospective case series	PLP	8		14.4 months average	VAS	Pain relief of 28.6%, 50.0%, <20%, 100.0%, 0.0%, 33.3% and 67.8% in patients 1, 2 and 4-8 respectively	
Bussel et al 2015	Case report	CRPS	1	48 year old female	3 months	NRS	Pain score of 6-9 reduced to 1-2	
Zuidema et al 2016	Case study	Post-surgical perineal pain	1	58 year old female	2 weeks	VAS	Reduction in VAS from 90mm to 10mm	No IPG or lead complications
Weiner et al 2016	Case series	FBSS	11	6 female, 5 male, mean age 63 years	6 weeks	VAS	7/11 patients reported at least 50%	No adverse events reported

							improvement in VAS. Average pain reduction at 6 weeks was 63%.	
Rowland et al 2016	Case study	Pelvic girdle pain	1	37 year old female	6 months	NRS, MPQ	43% reduction in NRS, 29% in MPQ score	
Deer et al 2017	Randomised controlled, multicentre trial – non-inferiority study comparing DRGS and SCS	CRPS and causalgia	152 (76 in each arm)	Average age 52.4 years in the DRGS arm and 52.5 years in the SCS arm (39 female subjects and 37 male subjects in each arm)	12 months	Composite endpoint of success if $\geq 50\%$ pain relief at the end of trial phase, and at three months without stimulation induced neurological deficit. Secondary endpoints relating to stimulation specificity, positional changes in stimulation intensity,	At 3 months, 81.2% of subjects receiving DRGS achieved the primary endpoint of success compared to 56.7% of SCS group, demonstrating superiority ($p=0.0004$). Pain relief remained significantly better in the DRGS arm than the SCS	21 serious adverse events in 19 subjects (8 in the DRGS arm and 11 in the SCS arm, no statistically significant difference in frequency between the two groups). 52 procedure related adverse events in 35 patients in the DRG arm (46.1%), and 29 procedure related

						functional status, psychological disposition and quality of life (SF-36).	arm at 12 months. DRGS subjects reported more consistent paraesthesia over postural changes and larger improvements in quality of life, functional status and psychological outcome measures than subjects receiving SCS at 12 months.	adverse events in 20 patients in the SCS arm (26.3) (p=0.018). No statistically significant difference in device-related or stimulation-related adverse events.
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Table 1. Search Results. FBSS: Failed back surgery syndrome; VAS: Visual analogue scale; CRPS: Complex regional pain syndrome; PLP: Phantom limb pain; BPI: Brief pain inventory; DRGS: Dorsal root ganglion stimulation; SCS: Spinal cord stimulation; IPG: Implantable pulse generator; MPQ: McGill Pain Questionnaire; NRS: Numeric rating s