Author Year Country PEDro Score Research Design Total Sample Size	Methods	Outcome
Baclofen		
Loubser & Akman1996 USA Pre-post N=16	**Population:** Age=21-63 yr; Gender: males=15, females=1; Severity of injury: Frankel classification: A-C; Type of pain: neurogenic=6, musculoskeletal=6, Type of pain=neuropathic and musculoskeletal. **Treatment:** Intrathecal Baclofen pump implantation. **Outcome Measures:** Visual Analogue Scale **(**VAS).	1. The majority (75%) of patients reported chronic pain prior to the procedure. 2. No significant differences were noted on VAS at 6 mo and 12 mo following pump implantation. 3. For those with neurogenic pain symptoms, ANOVA revealed a non-significant effect of intrathecal baclofen on pain at both 6 and 12 mo. (F2, 16), adjusted p=0.26. 4. In 5 of 6 patients with musculoskeletal pain symptoms, pain severity decreased in conjunction with control of spasticity; musculoskeletal pain responded to the Baclofen infusion while neurogenic pain did not.
Boviatsis et al. 2005 Greece Case Series Initial N=22; Final N=21	**Population:** MS, SCI (N=7): Level of injury: C4 to T11; Type of pain=undifferentiated; Results were presented by etiology. **Treatment:** Subjects were implanted with an intrathecal baclofen infusion pump delivering a continuous flow at a fixed rate of bolus intrathecal Baclofen. **Outcome Measures:** Barthel index scale, Ashworth scale and Penn spasm scale, self-assessment pain scale.	1. The self-assessment pain scale revealed a limited improvement in pain (p=0.0941).
Plassat et al. 2004 France Case Series Initial N=41;Final N=37	**Population:** SCI (N=17), MS and cerebral spasticity - spasticity of spinal cord origin, N=33); Type of pain=neuropathic and nociceptive. **Treatment:** Intrathecal Baclofen pump implantation. Those suffering from neuropathic pain received co-administration of morphine or clonidine. **Outcome Measures: Visual Analogue Scale (**VAS), Satisfaction Score for locomotion, pain, sleep, and Ashworth Scale.	1. Of the 25/40 patients suffering pain before ITB (Intrathecal Baclofen), 80% noted 25% improvement in pain and 40% noted 30-50% improvement. Twenty percent reported no change.
Motor Point Phenol Block		
Uchikawa et al. 2009 Japan Case Series N=7	**Population:** Mean age=55.8 yr; Gender: males=6, females=1; Level of injury: C; Severity of injury: AIS A=2, C=1, D=4; Type of pain=undifferentiated. **Treatment:** A teflon coated needle and a weak electric stimulation was used to localize a motor point on the anterior surface of the scapula. Phenol was injected into the point where the strongest muscle contraction was observed. Assessments were made before and 24 hr post injection.	1. Significant improvement was observed in passive ROM of shoulder flexion, abduction and external rotation and shoulder pain - VAS ($p<0.05$). 2. No significant improvement was seen in the modified Ashworth scale ratings and the manual muscle test ratings for flexion, abduction and external rotation.

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	Outcome Measures: Visual Analogue Scale (VAS), Ashworth Scale, flexion, abduction, rotation.	
Botulinum Toxin		
Han et al. 2016 Korea RCT PEDro=9 N=40	**Population:** SCI: Mean age=48 yr; Severity of injury: AIS A=5, B-D=23; Cause of injury: traumatic=3, falls=8, gunshot wounds=1, diving=3, knife wound=1, blunt trauma=1; Type of pain=neuropathic. **Treatment:** Patients with neuropathic pain post SCI were randomly divided into botulinum toxin (BTX) type A injection group or a placebo group. Treatment group received 200U of BTX-A while the placebo group received saline. **Outcome Measures:** VAS, WHOQOL-BREF. Outcomes were assessed at 4 and 8 weeks post injection.	1. Significant reduction in VAS score was seen at 4 weeks (p=.003) and 8 weeks (p=.005) post injection compared to the placebo group. 2. 30% or greater pain relief was experienced by 30% of patients at 4 and 8 weeks in the treatment group; while, only 5% and 10% of the placebo group experienced greater than 30% relief at 4 and 8 weeks in the placebo group.. 3. No significant improvements on quality of life was seen.
Marciniak et al. 2008 USA Case Series N=28	**Population:** SCI: Mean age: BTX=53.1yrs; Placebo=48.9yrs; Type of pain=undifferentiated. **Treatment:** Botulinum toxin (BTX) type A injection for focal spasticity control. **Outcome Measures:** Improvement in ambulation, positioning, upper-extremity function, hygiene, pain.	1. Improvement was seen post-injection in ambulation (56%), positioning (71%), upper-extremity function (78%), hygiene (66.6%), and pain (83.3%). 2. The effectiveness of BTX injections was not influenced by early use of BTX injections (less than a year after onset of symptoms) vs. late use. 3. Improvement in those with upper arm compared to lower arm injections was similar. 4. SCI completeness did not affect improvement.