Author Year Country PEDro Score Research Design Total Sample Size	Methods	Outcome
Lidocaine		
Finnerup et al. 2005 Denmark RCT PEDro=10 N=24	**Population:** Type of pain=neuropathic. **Treatment:** Subjects were initially divided into two groups: those with and without evoked pain. In this cross-over design, each group then was subdivided (experimental vs. controls) with experimental group receiving 5 mg of lidocaine infused over 30 min; controls received placebo. **Outcome Measures:** McGill Pain Questionnaire (MPQ)	1. In the total sample of patients, lidocaine reduced pain vs. placebo ($p<0.01$). 2. Assessing those with and without evoked pain, lidocaine still superior to placebo at reducing pain ($p<0.01$ and $p<0.048$, respectively). 3. More patients reported pain relief with at level and below-level pain while receiving lidocaine vs. placebo.
Kvarnstrom et al. 2004 Sweden RCT PEDro=10 N=10	**Population:** Type of pain=neuropathic. **Treatment:** SCI patients were recruited for participation. Ketamine (0.4 mg/kg) vs. lidocaine (2.5 mg/kg) vs. saline placebo administered intravenously over 40 min. **Outcome Measures:** Visual Analogue Scale (VAS)	1. VAS scores were significantly reduced in ketamine vs. the placebo group ($p<0.01$). 2. Comparing lidocaine and placebo group, no significant difference noted ($p=0.60$). 3. Pain relief was not linked to altered temperature thresholds or other changes in sensory function.
Attal et al. 2000 France RCT PEDro=10 N=16	**Population:** Type of pain=neuropathic. **Treatment:** Patients participated, six with stroke and ten with SCI. Subjects given 5mg of lidocaine or saline over a 30 min period. Treatments given in separate sessions, 3 wk apart. Order of sessions was randomized. **Outcome Measures:** Visual Analogue Scale (VAS), McGill Pain Questionnaire (MPQ)	1. Effects of lidocaine on pain were greater than effects of placebo, starting at end of injection, and lasting for up to 45 min post injection ($p<0.05$). 2. More people received pain relief with lidocaine than with placebo; however, relief waned by 60 min post injection. 3. Lidocaine reduced pain in 11 patients; and, in 6 of 12 patients, burning pain totally or partially relieved. 4. For those with brush-induced allodynia (n=8), lidocaine produced a reduction in intensity of allodynia 15 min post injection, and this lasted up to 30 min post injection.
Loubser & Donovan 1991 USA RCT PEDro=8 N=21	**Population:** Age=18-58 yr; Gender: males=15, females=6; Level of injury: cervical, lumbar; Duration of chronic pain=>6 mo; Type of pain=nociceptive. **Treatment:** Subjects had a lumbar subarachnoid catheter inserted. Subjects recorded their pain intensity at baseline. This was followed by two separate injections (placebo and 5% lidocaine in dextrose). A decrease in pain was considered a positive response to the treatment. **Outcome Measures:** Pain.	1. All 21 patients tolerated the injection (anaesthetics and placebo) well. 2. Negative placebo response was noted in 17 pts. Following lidocaine (n=13) patients showed a mean reduction in pain ($p<0.01$) for an average of 123.1± 95.3 min. 3. The decrease in pain reduction following lidocaine was significant ($p<0.01$) for the treatment group only.
Mexiletine		
Chiou-Tan et al. 1996 USA RCT	**Population:** Mean age=44 yr; Gender: males=11, females=2; Severity of injury: AIS: A-E; Time since injury=7 yr.; neuropathic.	1. Visual analogue showed no significant differences for average pain levels over the past week and pain at time of test regardless of

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PEDro=8 Initial N=15; Final N=11	**Treatment:** Following a 1 wk washout period subjects were given either 150 mg of mexiletine or placebo (150 mg 3x/day) followed by another 1 wk washout period then subjects placed in opposite group. **Outcome Measures:** McGill pain score.	which medication (drug or placebo) subject was taking. 2. Results of the McGill Pain score also showed no significant differences between the groups. 3. No change in level of function for either group at any time of the study.
Ketamine		
Amr 2010 Egypt RCT PEDro=6 N=40	**Population:** Age=48.6yr; Gender: males=33, females=7; Type of pain=neuropathic. **Treatment:** Participants were randomly assigned to treatment or control group. Participants in the treatment received 80mg intravenous ketamine over a 5 hours period daily for 1 week and 300mg gabapentin 3 times daily. The placebo group received placebo infusion and 300 mg of gabapentin 3 times daily. **Pain Scale:** Visual Analogue Scale (VAS)	1. Significant reduction in pain intensity was seen among individuals receiving ketamine infusion combined with gabapentin compared to those in the placebo group. The reduction remained significant up till 2 weeks post infusion ($p<0.05$).
Kvarnstrom et al. 2004 Sweden RCT PEDro=10 N=10	**Population:** Type of pain=neuropathic. **Treatment:** SCI patients were recruited for participation. Ketamine (0.4 mg/kg) vs. lidocaine (2.5 mg/kg) vs. saline placebo administered intravenously over 40 min. **Pain Scale:** Visual Analogue Scale (VAS)	1. VAS scores were significantly reduced in ketamine vs. the placebo group ($p<0.01$). 2. Comparing lidocaine and placebo group, no significant difference noted ($p=0.60$). 3. Pain relief was not linked to altered temperature thresholds or other changes in sensory function.
Eide et al. 1995 Norway RCT PEDro=7 N=9	**Population:** Age=25-72 yr; Gender: males=8, females=1; Level of injury: cervical, thoracic; Severity of injury: AIS: A-D; Onset of pain: <6 mo post injury, Length of pain: 14-94 mo. Type of pain=neuropathic. **Treatment:** Ketamine hydrochloride, alfentanil or a placebo was given as combination of bolus and continuous intravenous infusions. The bolus dose was administered for 60 secs and the continuous intravenous infusion started simultaneously and was delivered by IVAC syringe pump. This lasted 17-21 min while the testing was performed. **Outcome Measures:** Visual Analogue Scale (VAS).	1. Freidmann's two-way analysis by ranks showed differences between the various treatments ($p=0.005$). 2. The effect of alfentanil and ketamine was also significant ($p<0.01$ and $p<0.04$ respectively). 3. No significant differences were noted between the actions of ketamine and alfentanil (Wilcoxon $p=0.19$). 4. Significant differences were noted between the treatment groups ($p=0.008$). It was also noted that allodynia was not more changed by ketamine than by alfentanil (Wilcoxon $p=0.93$). 5. Alfentanil reduced wind-up-like pain ($p=0.014$) compared to the placebo group. The effect of ketamine on wind-up-like pain was not significantly reduced ($p=0.07$). 6. A high correlation between the serum concentration of ketamine

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		and the reduction of continuous pain ($r=0.78$, $p<0.002$) and the reduction of wind-up-like pain ($r=0.83$, $p<0.002$) was noted.