Conclusion: Pain & robust paraesthesia can be effectively and reliably induced with cuff-based ischemia in healthy participants

Experimental induction of paraesthesia by noxious stimuli: preliminary data

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BACKGROUND

- Paraesthetic symptoms are often reported by patients with neuropathic pain
- The aim of this study was to quantify the intensity of experimental paraesthesia and evaluate the reliability of their evocation

METHODS

1. Two groups of healthy subjects with exposure to 150 (n=11) and 200mmHG pressure (n=11), respectively
2. Test-retest reliability design
3. Paraesthesia induced by cuff-based sphygmomanometer
4. Pain & paraesthesia were assessed continuously and simultaneously using two Computerized Visual Analogue Scales (coVAS)
5. Data analyzed with Intraclass Correlation Coefficient (ICC) and Bland-Altman plots

RESULTS

- Reliability for paraesthesia induction was moderate to good: ICC = 0.70 (95% CI: 0.28 – 0.88)
- More severe symptoms were induced in group with low rather than high pressure but the difference was not statistically significant ($p > 0.05$)

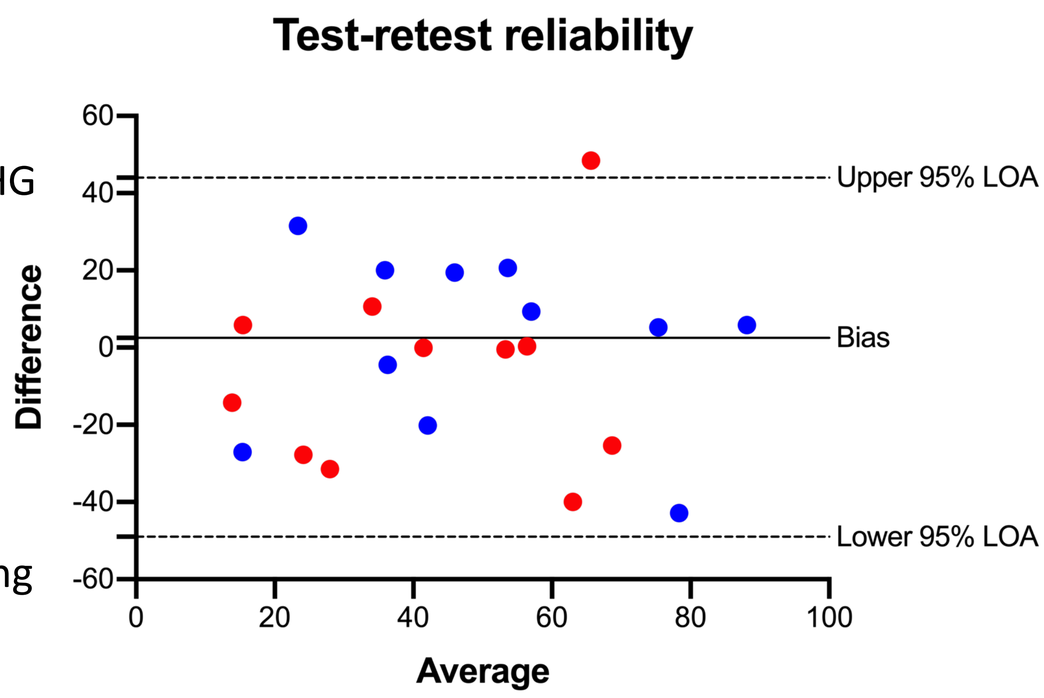

Fig. 1. Bland-Altman plot with mean difference (bias) between symptoms induced during the day "1" versus day "2". LOA – Limit of Agreement.

Group with 200mmHG Group with 150mmHG

More details about this study:

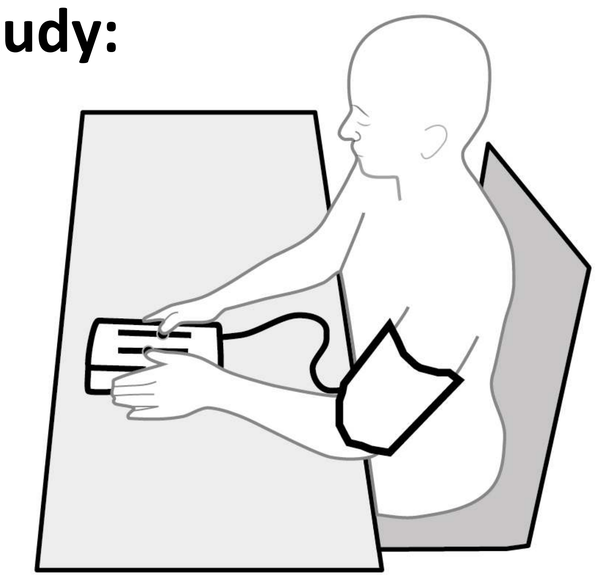

Fig. 2. Experimental setup.

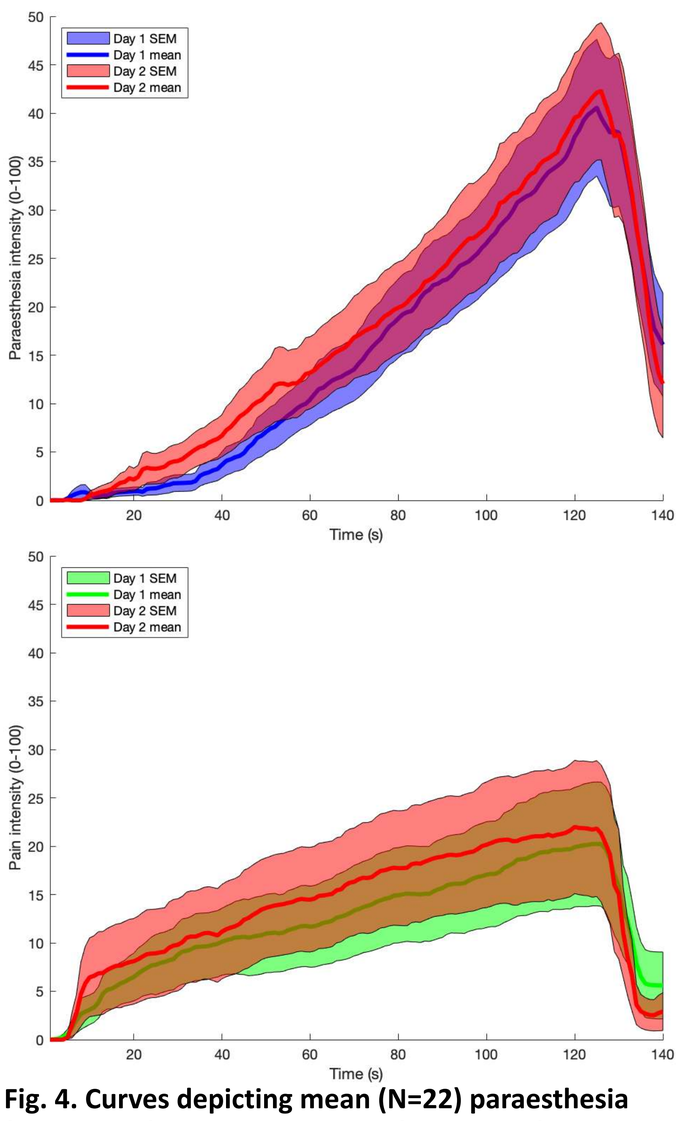

Fig. 4. Curves depicting mean (N=22) paraesthesia (upper part) and pain intensity (lower part).

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