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## Abstracts online

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Room: **Room 4.3**

### Reproducibility of corpus cavernosum electromyography in healthy young

[Jiang, X.](#)<sup>1</sup>, [Frantzen, J.](#)<sup>1</sup>, [Holsheimer, J.](#)<sup>2</sup>, [Meuleman, E.](#)<sup>1</sup>

<sup>1</sup>UMC St. Radboud, Dept. of Urology, Nijmegen, Netherlands, The, <sup>2</sup>University Twente, Institute for Biomedical Technology, Enschede, Netherlands, The

#### Introduction & Objectives

Research on reproducibility of corpus cavernosum electromyography (CC-EMG) relevant because reproducible signals indicate a biological phenomenon and no artefact. Reproducible signals are also required to use CC-EMG as a diagnostic erectile dysfunction. The aim of this study was to assess the reproducibility of C healthy young men under well-controlled conditions.

#### Material & Methods

Ten healthy young men with a mean age of 21.6 were studied. The subjects were not to drink alcohol and coffee, not to smoke, and not to have sexual activity 12 prior to the measurements. Measurements were performed between 8 and 12 a

closed, quiet room with the examiner present. Surface electrodes were placed on the penile shaft. One reference electrode was placed on a kneecap. The recordings lasted for 30 minutes during flaccidity. Two independent measurements were done at the first visit with an interval of 1 hour. The third CC-EMG measurement was done one day or later, under the same conditions as during recording session 1. First recordings were evaluated globally. Attention was paid to the quality of the recordings, baseline characteristics, and the waveform of CC-potentials. Ten most representative CC-potentials of each recording session were selected for further analysis. Amplitude (A) and harmonic frequency (F) of the CC-potentials from the base of the penis were calculated. The intra-individual reproducibility of these parameters was determined by Pearson correlation analysis.

## Results

The global pattern of the recordings and the waveform of CC-potentials was reproducible intra-individually. Comparing recording sessions 1 and 2, and 1 and 3, both parameters A and F showed significant correlations (see table 1).

Table 1: Parameters of CC-potentials and correlations of 3 recordings in 10 healthy volunteers (data are presented as the mean (SD))

	Rec. 1	Rec. 2	Rec. 3	R(1 vs. 2)	p (1 vs. 2)	R(1 vs. 3)	p (1 vs. 3)
A ( $\mu$ V)	403.78 (109.33)	397.11 (60.05)	425.63 (92.94)	0.741	0.014*	0.892	0.011
F (Hz)	0.27 (0.06)	0.26 (0.04)	0.28 (0.06)	0.899	0.000*	0.951	0.000

\*Significant correlation at  $p < 0.05$

## Conclusions

CC-EMG recordings in healthy men are reproducible. The results indicate that CC-potentials indeed reflect a biological phenomenon and, therefore, CC-EMG may be used to evaluate the functional state of the CC.

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