

595-P — 2016 [Board 595]

ADA

## FREMS for Painful Diabetic Neuropathy: Results of Repeated Treatments during One Year of Follow-up

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Complications - Neuropathy

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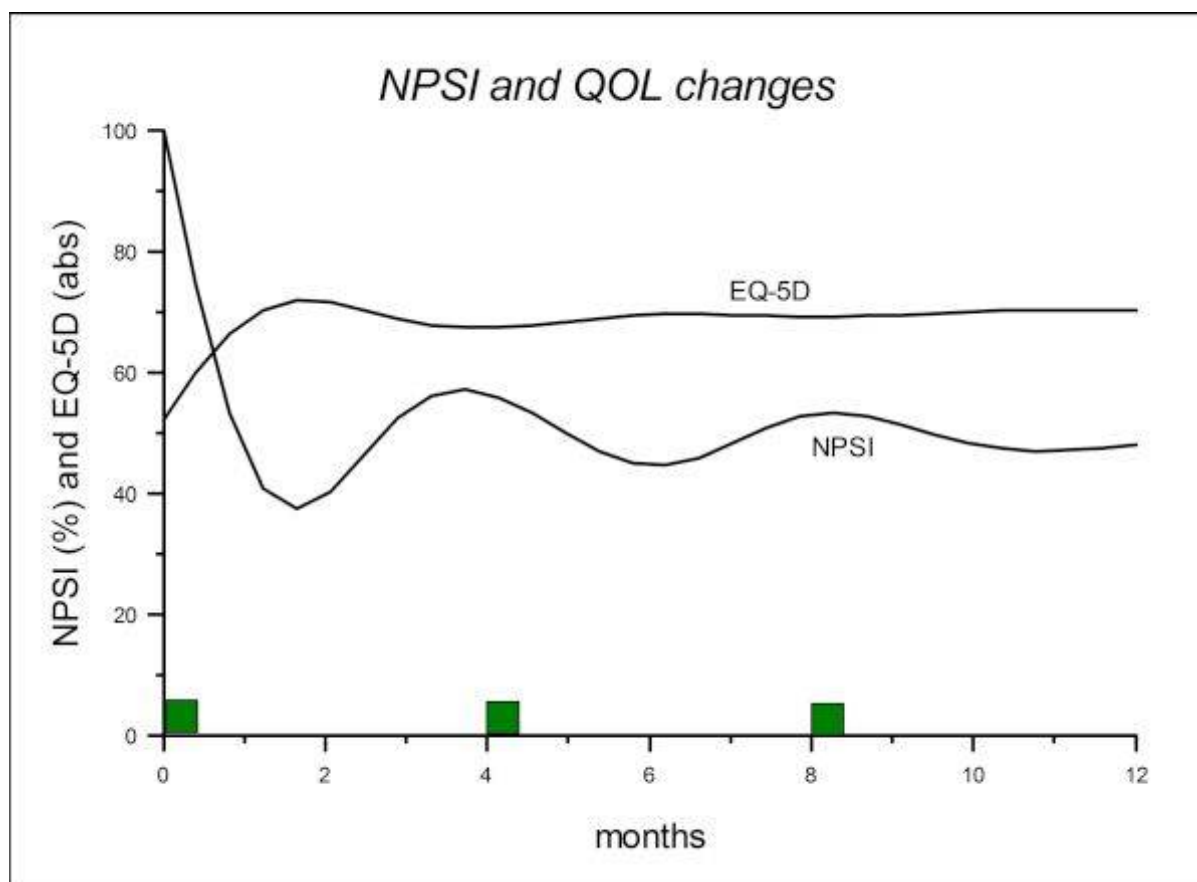
FREMS is useful as a specific form of electro stimulation in patients with painful diabetic neuropathy when they do not respond to conventional therapy. FREMS differs from TENS in aspect of the signal; it has 2 phases. A high-negative in voltage short-lasting spike (up to -300V lasting from 10-100  $\mu$ s) is followed by a resting phase of low voltage and long duration (0,9-999 ms). The overall effect is an improvement of the microcirculation.

To evaluate the perseverance of the effect we aimed to treat 100 patients with classical response to FREMS treatment characterized by a fall in pain of at least 50% from baseline evaluated by the Neuropathic Pain Symptom Inventory (NPSI). We present data of the first 53 patients followed for one year.

The average results of the 53 subjects is shown in the Figure as %-changes from control (defined as 100% pain) depicted at months 1,3,6,8,10 and 12 after the first day of FREMS treatment. Three FREMS treatments of 2 weeks were given at T=0, T=4 and T=8 months (represented by green squares at timeline).

The curve is smoothed (cubic spline). At the same time points quality of life (QoL) was assessed by the EQ-5D questionnaire as visual scores from 0-100.

The study shows that in patients characterized by a classical response to FREMS the average response persists during 1 year follow up when FREMS is given at 4 months intervals with a gradual and significant increase in QoL.

**Disclosure:** B. Imholz: None. J. Heijster: None.



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