# Hypertension treated by a PEMF-System

A 3 Vear's review ©® Mr W. M. R. Balliel<sup>1,2</sup> Paper No 54 – ESM-EVBO 2019





## Introduction:

PEMF\*-Systems get more evaluated, are WHO-certified and are structured used by health-care professionals in supporting treatment, single-use or combined with other therapies. Specific PEMF-Systems are proved to stimulate the Vasomotion and better the microcirculation.

\*Pulsed Electro-Magnetic Field

**ESM-EVBO** 

#### Cases & Methods:

Several patients (female, age 59 => 63 yrs) with (severe) hypertension [e.g. 195 / 154 mmHg] e.c.i. without any other patho-mechanism, whose GP's / PhD's accepted a treatment by a specific PEMF System, as conducted by a certified therapist in function of research nurse.

Medicine (e.g. Irbesartan / Sumatriptan 50 / Ca+-Antagonist Amlopidine) was stopped and a specific PEMF-Treatment on a standard method was started.

#### Treatment:

 $\Delta t_1 / 3$  mths = Parallel medication + PEMF – whole-body-applicator.

 $\Delta t_2$  / 6 mths = Stop medication, only PEMF-whole-body-applicator, continuing.

 $\Delta$   $t_{\rm 3}$  / 12 mths, i.e. 6 mths after stop medic, only PEMF; RR-Range high normal, max. 155 / 95 mmHg

 $\Delta$   $t_4$  / 15 mths, i.e. 9 mths after stop medic, only PEMF; RR-Ranges on weekly controls stay normal

 $\Delta$   $t_{\scriptscriptstyle 5}$  / 18 mths until  $\Delta$   $t_{\scriptscriptstyle 10}$  / 33 mths: still only PEMF; RR-Ranges normal; PhD double check confirms.

Starting PEMF on 2 basic treatments / day  $\Delta$ -t 8 min on a 6-week-program, from 3,5  $\mu$ -T / daily treatment, growing up to 35  $\mu$ -T on a regime of 2 basic treatments / day  $\Delta$ -t 8 min .

After 2 times of the 6-week-programs, PEMF-Treatment got routine at the 35  $\mu$ -T – level. No further medication was administered.

Psychological or other negative side-effects on Hypertension & other Biassing-Data were excluded.

## Results:

After 2 weeks, a significant lower RR systolic & diastolic was stated at a max of 149 / 89 mmHg. 6 months later, GP's / PhD's didn't restart medicine and a structured PEMF-treatment continued under supervision of the nurse and in a scheme of 2 times / day for minimal 8 minutes. 12 months later, the PEMF-Treatment as therapy for this type of hypertension was accepted by PhD. Controls on regular scheme shows a continuous stability of the RR on a normal range. No medication was necessary or had to be re-started.

The 18mths, 24mths and 33mths evaluation showed the same results.

QoL bettered, daily home-treatment started and the negative side-effects of anti-hypertensiva, as e.g. oedema were prevented.

# Positive 2<sup>nd</sup>-line effects:

One of the patients also suffers from high obesity and DM, type 1 & NCH-Facet-Arthrosis. On treatment day, we asked for security reason, to measure the blood glucose this evening, just before insulin administration. More security to advice the right dose is obliged. Each treatment day, the results of these measurements were 30% lower than on days without PEMF Treatment. The patient adapted this data to the insulin-regime and had to administer a 30% lower dose. A significant relation between PEMF-Treatment and lower blood-glucose than the known curve, could be stated and reproduced each time. *Hypothetic* explanation may be, that this PEMF-System also stimulates -even on a short-time range- the Vasomotion and hereby, the function of the Langerhans Cells and a probably weak insulin-production may be stimulated.

More research on this will be necessary. *Unfortunately*, this patient stopped treatment on economic reason, Health Insurance won't pay the PEMF-Treatment; we couldn't get more valuable data.

Varia / other cases [well bettering symptoms, but not enough valuable data]:

- 1. Trigeminus inferior-lesion, post-OK [2 pat.]
- 2. Hernia lumbalis & cervicalis et. al., post-Traumata
- 3. Fibrosis peritonealis morb. Ormond / Stents v. porta superior
- 4. MRSA-wound lower leg; secundair wound healing 5. Varices

#### **Conclusions & future directions:**

Specific PEMF-Treatment as single-use-therapy and / or as support of other therapeutic approaches need to be more evaluated, validated and updated in Medical Compendia, combined with the specific PEMF-System.

Contact & more: info@microcirculation.tips