

# Results of the Trial of the Pulsed Magnetic Therapy Device (QRS) on the Cancer Process

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A randomised double-blind crossover trial was carried out using 5 pairs of cancer patients treated for 8 weeks with a QRS active pulsating magnetic field (PMF) device and for 8 weeks on a placebo.

**The trial was to test the hypothesis that PMFs of special frequencies, particularly Extremely Low Frequencies (ELF: 3Hz – 300Hz), affect human cells in cancer patients in a way that improves their metabolism, thereby helping to reverse the cancer process or ‘milieu’.**

**Several factors claimed to be characteristic of cancer progression were monitored before the eight weeks of active (or placebo) treatment, at crossover, and again after the eight weeks of placebo (or active) treatment:**

- Lymphocyte Viability count
- Cancer progression stage – using Clot Retraction Test
- Lymph System Stress – using CRT
- Gastro-intestinal stress – using CRT
- Blood circulation efficiency - using NIRP/CMMD
- General health - using Electro-Dermal Screening Testing

**During the trial one person died and a second withdrew to travel overseas. The results were therefore averages for 8 participants. Results are considered *significant* if there is a 95% probability that the values measured are not due to chance, ie there is only a 5% probability that the values are due to chance,  $P=0.05$ . A value of  $P=0.1$  represents a 90% confidence level so P values between 0.05 and 0.1 are marginally significant. Results were as follows:**

**For all factors measured the calculation was based on a two sample t-test, ie the difference in the change in the measured value of the factor after active treatment and the value after placebo treatment. The average of the differences for the first four participants (active followed by placebo) was compared with the average for the second four (placebo followed by active)**

**1. Lymphocyte Viability count:** slight evidence of a slowing down of the falling lymphocyte viability with a possible delayed positive effect. Treatment effect: **-0.12** (-12%), not significant ( **$P=0.25$** ).

**2. Bolan's Clot Retraction Test:** This test examines a drop of dried blood (clot retraction) under a Brightfield/phase contrast microscope to inspect the fibrin net. The following three measurements come from the appearance at different areas of the drop.

**2a. Cancer Stage Progression:** Some evidence of a slowing down of the process. Treatment effect, **2.72**, was Significant ( **$P=0.013$** ) – This test uses a four-stage progression of cancer from 0 (early) to 4 (advanced). The change in stage while on active is compared with that on placebo. For example one participant's stage fell from 2.25 to 0.75 while on active (-1.5) and rose to 1.75 while on placebo (+1.0) an improvement of 2.75. Another increased from 0.5 to 1.38 on active (+0.88) and rose further to 2.5 on placebo (+1.12), an improvement of 0.25. In this case the treatment only slowed down the progression. So a treatment effect does not necessarily mean a reversal of the cancer process.

**2b. Lymph Stress:** some evidence of reduced lymph stress. Treatment effect, **1.94**, was marginally significant ( **$P=0.075$** )

**2c. Gastro-Intestinal Stress:** Some evidence of a reduced GIT stress with a possible delayed positive effect. Treatment effect, **0.13**, was not significant ( **$P>0.3$** )

**3. Blood circulation/vascular system (NIRP/CMMD):** This test measures the profile of the blood pulse using Near Infrared and Red Photoplethysmography (NIRP) and calculates blood parameters using a Computerised diagnostic device for measuring Micro-and Macrovascular Dynamic perfusion (CMMD). The location and size of the dirote, the second part of the pulse, gives an indication of the microvascular and macrovascular circulation, including oxygen perfusion in peripheral tissues, condition of arteries, etc.

**No significant positive effects observed. Fibre Stretching factor was found to exceed the normal range for one third of the participants, suggesting the magnetic field was too high for them.**

**4. Electro-Dermal Screening Testing (Listen Machine):** This test measures the departure from the optimum value (~100,000ohms) of the skin resistance at 22 acupuncture points on the left and right hands. The instrument is set at 50 for the optimum (100K ) value. Values below 50 represent chronic conditions, such as degenerative disease; values above 50 represent acute conditions, such as an inflammation. Average values of the departure from 50 were calculated for 8 cancer participants.

The overall treatment effect for 8 participants was **1.79**, which was significant (**P=0.04**). This represents the difference between the average of the active –placebo effects for the first four participants (2.69) and that of the placebo- active for the second four (0.90). Most of the improvement appeared to have been associated with the following organ systems:

- **cell metabolism**– Right, **9.75 (P=0.17)** – Left, **3.0 (P>0.3)** Not significant.
- **heart** – Right, **8.75 (P=0.028)** Significant. For example one participant’s reading changed from 38 to 47 on active so the difference from 50 dropped by 9, and the reading increased to 44 on placebo, the difference increasing by 3. This gave a total improvement on active compared to placebo of 12.
- **allergic response** – Right, **5.50 (>0.3)** Not significant.
- **endocrine system** (Triple warmer system - Left), **5.50 (P=0.28)** Not significant.
- **peripheral & CNS** – Left, **5.25 (P=0.068)** Marginally significant.
- **lymph** –Left, **3.75 (P=0.29)** – Right, **3.0 (P=0.096)** Marginally significant.
- **small intestine** – Right, **3.5 (P=0.28)** Not significant.

Of the 22 systems measured, 15 showed improvement of 1-5 (five>2.5; another four >1) and 7 showed worsening of 1-3 (5<1.0). These are the averages for all 8 participants so some changes were larger in some individuals and others smaller.

### **Overview of all four test methods**

Although only some of the treatment effects reached significance (P<0.05) most of the treatment effects were positive (see Figure below), suggesting that those that did not reach significance were probably real rather than due to chance. It is of interest to note that there was no positive treatment effect on Lymphocyte Viability.

**Some participants did not have all measurements taken, so values used were based on the assumption that no change had taken place since the previous reading. The methods used to calculate treatment effects were conservative. For example there was some evidence that the treatment effect from an active device carried over into the placebo period**

This had the effect of reducing the difference between the active and placebo treatment effects. Thus the actual positive benefit was probably larger than the observed value calculated.

These results throw some light on the factors that might be important in reversing the cancer process. They also suggest ways of improving protocols and monitoring changes for future trials. For example:

- Future crossover trials should have at least 20 participants to allow for some drop-outs and to ensure that most treatment effects reach significance.
- Tests for the effect of the QRS on the immune system should use a different marker such as immunoglobulins rather than lymphocyte viability. (The IAT clinic in the Bahamas produces significant increased survival with cancer patients by boosting the immune system components in the form of Immunoglobulins IgA, IgG and IgM.)
- Settings should not exceed No. 6 for cancer patients because of the potential problem with free radical formation
- It might be possible to use individualized settings using a feedback device to optimise the QRS treatment. This might be possible in a crossover trial where comparisons are made between active and placebo for each individual. It would not be possible in a simple randomised trial where treatment in the two arms must be identical.

Pulsed Magnetic Therapy (QRS) - Summary of Results

