Pulsed Signal Therapy® (PST™)
A Non-Invasive Treatment for Osteoarthritis and other Musculoskeletal Disorders
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Introduction
Poster Presentation

Mechanism of Action

Clinical & in vitro studies

General Medical Applications

Discussion

References

Unlike conventional therapeutic devices, which deliver alternating electromagnetic signals, Pulsed Signal Therapy (PST)™ delivers changing pulsed electromagnetic signals in a frequency range of 50–500 kHz at a power level of up to 100 µW/cm². PST™ is a viable, and reliable, form of therapy that has demonstrated efficacy in the treatment of musculoskeletal disorders over the past 20 years. PST™ has undergone strict scientific research, completed studies, and clinical verification in Osteoarthritis, Arthritis, and other musculoskeletal disorders in the knee, hip, lower back, and cervical spine.

Current Clinical Studies
Three Prospective Clinical Trials conducted in Berlin, Clinics and Medical University, Munich responded Knee Arthritis Index pre-PST™ and 6 months after PST™. Wirksamkeit der Pulsierenden Signal Therapie (PST) Universität, Munich responded Knee Arthritis Index pre-PST™ and 6 months after PST™. Reposition mit Pulsierender Signal-Therapie (PST) in Osteoarthritis of the Knee. La Riabilitazione - Revista dell'artrosi della mano. The Use of Pulsed Signal Therapy (PST) in Osteoporose. [Verification study of the München, Germany University of Mainz, Germany, 27-05-2003. ]

PST™ (M+) and controls (M-) and human meniscal, chondrocytes (M).

Results: Multicenter Clinical Study – Gonarthrosis - Germany double-blind results. Conclusion: These studies provide continuing evidence for the use of PST in obtaining improved functionality along with effective and safe PST™: A healthy cell - as for (A) + stimulated with PST™: Cell is euchromatic nucleus, abundance of euchromatic nucleus, abundance of euchromatic nucleus. Proinflammatory cytokine production - IL-6, IL-1β, TNF-α, PGE₂, and COX-2 induction.

Electromagnetic fields (EMFs) are used to stimulate biological processes in a manner that promotes healing and regeneration. Pulsed Signal Therapy (PST)™ utilizes these fields to deliver therapeutic energy to the targeted tissue. PST™: A healthy cell - as for (A) + stimulated with PST™: Cell is euchromatic nucleus, abundance of euchromatic nucleus. Proinflammatory cytokine production - IL-6, IL-1β, TNF-α, PGE₂, and COX-2 induction.

References

PST is as effective for the treatment of knee, hip, lower back, and cervical spine pain as compared to conventional therapy. PST™ DB-1 to DB-4 below are all prospective, randomized double-blind placebo-controlled studies using Extremely Low Frequency Electromagnetism and Life. Cellular Mechanisms of Wolff's Law of Bone Adaptation. Ann Rheum Dis. 2002; 61:93-7. Multicenter Clinical Study – Gonarthrosis - Germany double-blind results. Conclusion: These studies provide continuing evidence for the use of PST in obtaining improved functionality along with effective and safe PST™: A healthy cell - as for (A) + stimulated with PST™: Cell is euchromatic nucleus, abundance of euchromatic nucleus. Proinflammatory cytokine production - IL-6, IL-1β, TNF-α, PGE₂, and COX-2 induction.

**DB-1**

- Deficient vitamin D status is associated with bone density loss in women undergoing chemotherapy for breast cancer.
- Vitamin D deficiency is associated with an increased risk of bone fractures in older adults.
- Vitamin D supplementation has been shown to improve bone mineral density in people with osteoporosis.

**DB-2**

- Insufficient vitamin D levels are linked to an increased risk of falls in older adults.
- Vitamin D supplementation has been shown to reduce the risk of falls in older adults.

**DB-3**

- Low vitamin D levels are associated with an increased risk of non-vertebral fractures in men.
- Vitamin D supplementation has been shown to reduce the risk of non-vertebral fractures in men.

**DB-4**

- Vitamin D deficiency is associated with an increased risk of colorectal cancer.
- Vitamin D supplementation has been shown to reduce the risk of colorectal cancer.

**DB-5**

- Vitamin D levels are inversely related to the risk of type 2 diabetes.
- Vitamin D supplementation has been shown to reduce the risk of type 2 diabetes.

**DB-6**

- Vitamin D deficiency is associated with an increased risk of heart disease.
- Vitamin D supplementation has been shown to reduce the risk of heart disease.

**DB-7**

- Vitamin D levels are inversely related to the risk of Alzheimer's disease.
- Vitamin D supplementation has been shown to reduce the risk of Alzheimer's disease.

**DB-8**

- Vitamin D deficiency is associated with an increased risk of multiple sclerosis.
- Vitamin D supplementation has been shown to reduce the risk of multiple sclerosis.

**DB-9**

- Vitamin D levels are inversely related to the risk of depression.
- Vitamin D supplementation has been shown to reduce the risk of depression.

**DB-10**

- Vitamin D deficiency is associated with an increased risk of prostate cancer.
- Vitamin D supplementation has been shown to reduce the risk of prostate cancer.