



The SONG Laser Protocol and Radiculopathy

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Abstract

Background: This case study describes the benefits seen in a patient suffering from L sided upper arm radiculopathy. Our hypothesis is that the SONG Laser Protocol may have benefits in a patient suffering from radiculopathy.

Methods: This was a case study focusing on a single patient suffering from radiculopathy. The SONG Laser Protocols were delivered in a clinic setting and the primary outcome measures were the physical benefits along with clinical observations.

Results: The patient showed marked improvement following the SONG Laser Protocols with an 85% reduction in pain and paresthesia.

Conclusion: The SONG Laser Protocol may have a beneficial effect on radiculopathy. A clinical trial is needed to confirm safety and efficacy.

Key Words: Radiculopathy, SONG Laser activation, human Very Small Embryonic Like (hVSEL) Stem Cells

Introduction

Radiculopathy is a disabling condition which has significant negative impacts on mental health, physical functioning and social participation with an incidence of approximately 85 in 100,000 people. The current treatment of radiculopathy includes steroid injections, pain medication, physiotherapy and occupational therapy to support and manage the symptoms. Surgical intervention may be used in some patients [1].

The SONG Laser Protocol (formerly known as the QiGen Protocol) involves the activation of autologous human Very Small Embryonic Like (hVSEL) stem cells [2] in Platelet Rich Plasma (PRP) by a modulated red laser known as the SONG Laser [3]. The mechanism of action of the SONG Laser is still the subject of ongoing research and a proposed mechanism based on quantum mechanics has been hypothesized [4]. The SONG Laser Protocol is also proposed to be beneficial as an anti-aging modality [5] and in the treatment of dementia [6].

Method

This was collaborative work between Greenberg Regenerative Medicine, Bryn Mawr, Pennsylvania,

USA and Qigenix, Carlsbad, California, USA. The patient provided informed consent prior to receiving the SONG Laser Protocol. The SONG Laser Protocol is a modified autologous Platelet Rich Plasma (PRP) procedure with minimal manipulation, and it is a closed procedure. As such it is a low-risk procedure and does not require Ethical Committee approval.

This patient in this case study was a 76-year-old female with a progressive onset of L sided upper arm radiculopathy with radiation down the lateral aspect of the arm with weakness in the entire hand with grasp and abduction of the fingers. The patient underwent a MRI scan (without contrast) which showed a C5 and C6 herniated nucleus pulposus and spinal stenosis. The patient was seen by physiotherapy and had both epidural steroids and a transforaminal steroid injection without relief of neither weakness nor the burning radicular pain.

The patient was evaluated and treated. The SONG Laser Protocol was performed by direct injection into the facet capsule by bisecting a plane at 45° between the spinous and transverse process of the left cervical vertebrae C3 to C7. 1 mL of SONG Laser activated PRP (approximately 2x10⁶ [6] SONG Laser activated VSEL stem cells) was used in each injection.

The patient's scapula was inferior displaced and was relocated using osteopathic muscle energy techniques.

In addition, the patient received low velocity-low amplitude (Lvla) osteopathic technique using low velocity and low amplitude force to gently move a subluxation in a vertebra to the C5 vertebra, PRP to stabilize the scapula and the posterior rotator cuff, bicep, and annular ligament.

Facet capsular injections were given from C2 to T1 using SONG Laser activated hVSEL stem cells at the fibro-osseous junction on two occasions separated by 4 weeks.

Outcome

The first treatment resulted in an improvement in strength and a reduction in radiculopathy. Four weeks after the second SONG Laser Protocol the pain and paresthesia were reduced by 85% and weakness was significantly improved. The clinical examination became normal for C5 to C8. The patient remains stable.

These benefits arose in the days and weeks following the SONG Laser Protocol indicating possible cellular mechanisms of these long-term benefits. This use of the SONG Laser Protocol in radiculopathy has potential in future therapeutics and is a safe and cost-effective procedure when compared to current standard treatments. The SONG Laser Protocol may be a valid alternative to cervical fusion surgery and the segmental disease which may follow. In addition, the SONG Laser Protocol demonstrated a full return of motor function which is often not possible with cervical fusion surgery.

The patient did not have any adverse events following the SONG Laser Protocol. Patients often report rapid benefits (within minutes) following the SONG Laser Protocol which are then often followed by slower and sustained benefits. We attribute the rapid benefits to the action of SONG Laser activated growth factors, cytokines and platelet secretory products in PRP in addition to the secretion of growth factors and cytokines from activated hVSEL stem cells. These are likely to be paracrine effects and to provide temporary benefits. Sustained benefits may be attributed to the homing and repopulation of the stem cell niche and stem cell pool by SONG Laser activated pluripotent hVSEL stem cells. Further basic research work is needed on the attribution of these actions and a double-blind placebo controlled clinical trial will be planned to confirm the preliminary data in this case study.

References

1. Iyer, S., & Kim, H. J. (2016). Cervical radiculopathy. *Curr Rev Musculoskelet Med* 9: 272–280.
2. Hollands, P., Aboyeji, D. R., & Ovokaitys, T. (2020). The action of modulated laser light on Human Very Small Embryonic-Like (hVSEL) stem cells in Platelet Rich Plasma (PRP). *CellR4*, 8, e2990.
3. Hollands, P., & Ovokaitys, T. (2022). Human Very Small Embryonic Like (hVSEL) Stem Cells: Little Miracles. *CellR4*, 10, e3304.
4. Brindley, J., Hollands, P., & Ovokaitys, T. (2021). A theoretical mechanism for the action of SONG-modulated laser light on Human Very Small Embryonic-Like (hVSEL) stem cells in Platelet Rich Plasma (PRP). *CellR4*, 9, e3201.
5. Hollands, P., & Ovokaitys, T. (2024). New concepts in the manipulation of the aging process. *Current Stem Cell Research & Therapy*, 19(2), 178-184.
6. Schroeder, T., Ovokaitys, T., & Hollands, P. Dementia and the SONG Laser Protocol: a clinical case study.