

Dementia and the SONG Laser Protocol: a clinical case study

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Abstract

BACKGROUND: The aim of this case study was to investigate the safety and efficacy of the SONG Laser Protocol in the context of dementia. Our hypothesis is that the SONG Laser Protocol, when administered intravenously, may have a beneficial effect on the alpha waves [as assessed by electroencephalography (EEG)] in a patient suffering from dementia.

CASE REPORT: This was a case study focusing on a single patient suffering from dementia. The SONG Laser Protocol was delivered in a clinical setting, and the primary outcome measures were the amplitude of alpha waves as seen in EEG, the target frequency of the alpha waves, and the power spectrum density.

CONCLUSIONS: The SONG Laser Protocol may have a beneficial effect on alpha wave activity in a patient suffering from dementia. Clinical trials are needed to confirm safety and efficacy.

INTRODUCTION

Dementia is a global cause of morbidity and mortality^{1,2}. The current standard treatment of this disease includes cholinesterase inhibitors (ChEIs) and medications to minimize the cognitive and behavioral changes seen in dementia^{3,4}.

The SONG Laser Protocol (formerly known as the QiGen Protocol) involves the activation of autologous human Very Small Embryonic Like (hVSEL) stem cells⁵ in platelet-rich plasma (PRP) by a modulated red laser known as the SONG Laser⁶. 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 hypothesized⁷. The SONG Laser Protocol is also proposed to be beneficial as an anti-aging modality⁸.

CASE PRESENTATION

This was a collaborative work between Live in Alignment (Agoura Hills, California, USA) and Qigeneration/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.

The patient in this case study was a patient in their 80s who was first diagnosed with the early stages of dementia in 2015. The patient had no co-morbidities and was taking no other medication at the time the SONG Laser Protocol was received.

The patient received 40 mL (total cell count approximately 8.0×10^7 hVSEL stem cells) of autologous SONG Laser-activated hVSEL stem cells in PRP *via* the intra-articular route into each knee (20



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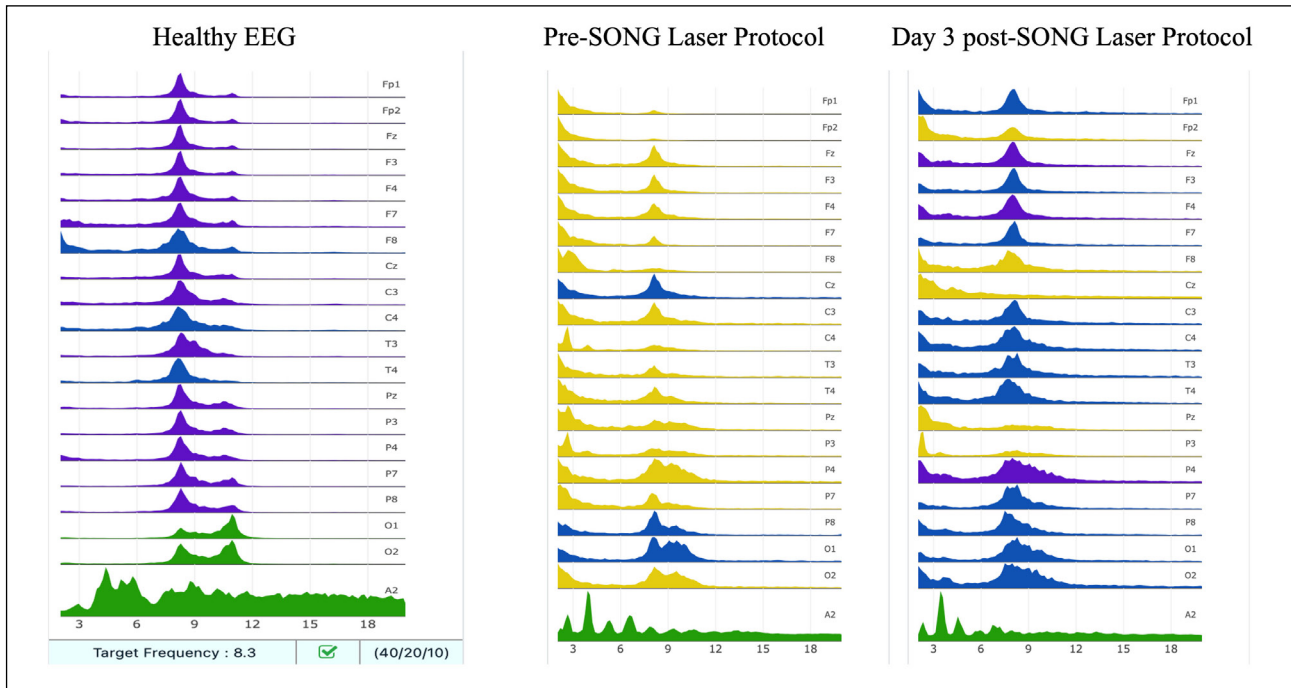


Figure 1. Healthy, pre-SONG Laser Protocol and post-SONG Laser Protocol EEG. Waves' color represents the number of neurons active at each electrode. (Yellow: Few active neurons. Blue: Many active neurons, Purple: Abundant active neurons).

mL per knee). In addition, 42 mL (total cell count approximately 8.4×10^7 hVSEL stem cells) of autologous SONG Laser-activated PRP were given intravenously into the left median cubital vein. The SONG Laser was applied to the head of the patient the day before the SONG Laser Protocol as this appears to enhance the homing of SONG Laser-activated hVSEL stem cells by the upregulation of the adhesion molecules. The focus was on musculoskeletal disease, and the electroencephalography (EEG) was taken to assess any possible neurological benefits. The patient was monitored by assessing the alpha wave quality by EEG (Cognionics, Quick 20, CA, USA). The patient underwent alpha wave EEG assessment prior to the SONG Laser Protocol and then on Day 3 following the SONG Laser Protocol.

At the time of receiving the SONG Laser Protocol (pre-dose), the patient had poor levels of alpha waves on EEG. On day 3 post-SONG Laser Protocol, the amplitude of alpha wave levels increased (Figure 1). The target frequency of the alpha waves was 7.8 Hz pre-SONG Laser Protocol and 8.0 Hz post-SONG Laser Protocol. The normal range for alpha wave target frequency is 8.0-12.0 Hz. The PSD is the amount of energy produced at each electrode at the peak of the alpha waves of each

electrode. The PSD increased post-SONG Laser Protocol in all but one of the 19 EEG electrodes (Table 1 and Figure 2).

Table 1. Power spectrum density (PSD) hard data.

Number	Electrode	Pre-SONG Laser Protocol	Post-SONG Laser Protocol
1	Fp1	29.1	52.5
2	Fp2	22.9	40.8
3	Fz	33.6	64.2
4	F3	28.4	64.7
5	F4	27.3	56.1
6	F7	20.9	31.5
7	F8	13.4	28
8	Cz	32	0.7
9	C3	15.4	37.3
10	C4	18.3	34.1
11	T3	5.2	8.4
12	T4	18.7	31.3
13	Pz	17.5	34.9
14	P3	12.2	31
15	P4	20.7	29.4
16	P7	14.5	21.5
17	P8	33.3	40.3
18	O1	23.8	36
19	O2	15.3	22

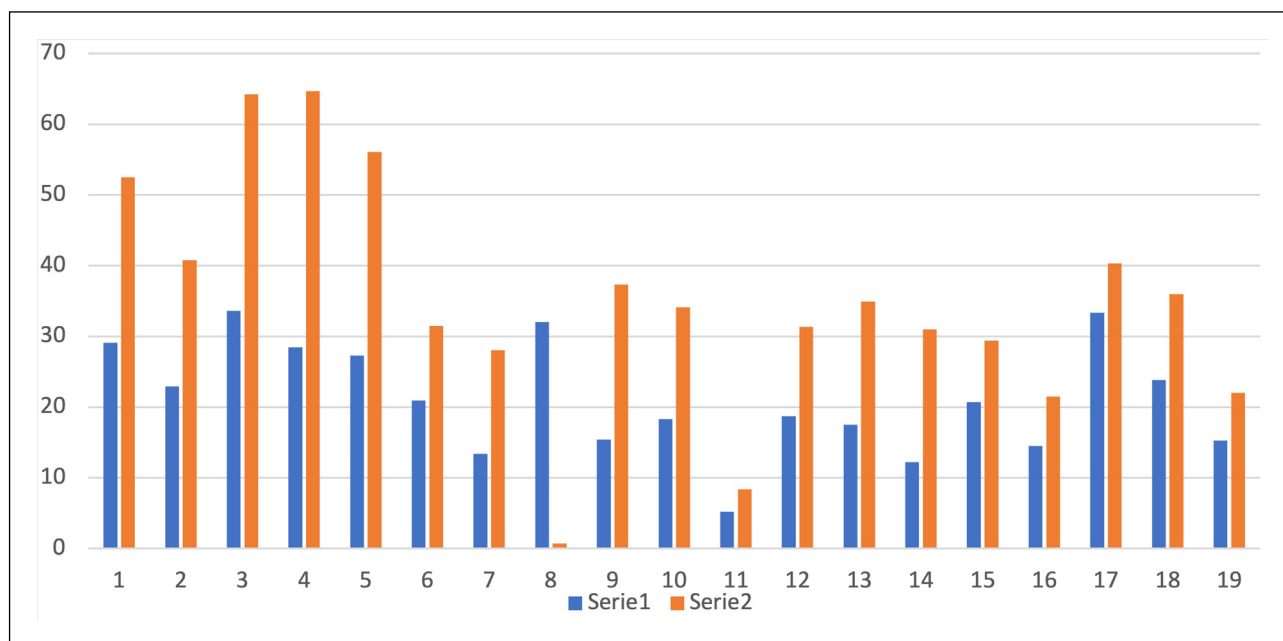


Figure 2. Power spectrum density (PSD) pre- and post-SONG Laser Protocol. Series 1: Pre-SONG Laser Protocol. Series 2: Post-SONG Laser Protocol. Reading Cz (number 8) post-SONG Laser Protocol is unexpectedly low. The most likely cause is a defective electrode contact.

There was an overall increase of 65% in PSD across all electrodes on day 3 post-SONG Laser Protocol. The authors are not aware of any other reports of such rapid quantitative EEG and symptomatic improvement following a stem cell procedure. Such results may be unprecedented and certainly warrant further study.

CONCLUSIONS

The patient remained stable and reported increased levels of well-being and memory. 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 dementia may have potential in future therapeutics as it is a safe and cost-effective procedure when compared to current standard treatments. Patients often report⁹ rapid benefits (within minutes) following the SONG Laser Protocol, which are then often followed by slow and sustained benefits. We attribute the rapid benefits to the action of SONG Laser-activated growth factors, cytokines, platelet secretory products, and exosomes, in addition to the secretion of growth factors and cytokines from activated hVSEL stem

cells. These are likely to be paracrine effects and will provide temporary benefits. This paracrine hypothesis is proposed in this case as benefits were seen on day 3 post-SONG Laser Protocol, which is too soon for a cellular-based benefit. Any slower and 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.

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AUTHORS' CONTRIBUTIONS:

T. Schroeder and T. Ovokaitys: Planning and execution of the clinical work, document review and approval.

P. Hollands: Drafting out the text of the manuscript, revision and review, and document approval.

DATA AVAILABILITY:

Hard data are available if required.

CONFLICT OF INTEREST:

T. Schroeder is the Clinical Director of Live in Alignment.
T. Ovokaitys is CEO of Qigenix and Qigeneration.
P. Hollands is CSO of Qigeneration.

FUNDING:

No funding was received for this project.

INFORMED CONSENT:

Informed consent was provided by the patient.

ETHICS APPROVAL:

Due to the design of the study, Ethics Approval was not applicable.

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