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Case Report

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Functional and Structural Recovery in Myasthenia Gravis and Rheumatoid Arthritis Using a Biophoton-Emitting Device: A Case Report

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ABSTRACT

Background: Myasthenia gravis (MG) is an autoimmune neuromuscular disorder characterized by fluctuating skeletal muscle weakness due to impaired neuromuscular transmission, most often mediated by antibodies against the acetylcholine receptor (AChR). Rheumatoid arthritis (RA) is a chronic systemic autoimmune disease that leads to persistent synovial inflammation, joint deformity, and systemic complications. Standard management for both disorders frequently require long-term immunosuppressive therapy, yet many patients experience incomplete responses or adverse effects. Novel, non-invasive therapeutic strategies are therefore needed. Biophoton therapy, which leverages ultraweak photon emissions to influence cellular metabolism, oxidative stress, and intercellular signaling, has shown promising preliminary results in a variety of chronic neurological and systemic conditions.

Objective: To describe functional, structural, and systemic improvements in two patients with MG one with concomitant RA following the use of Tesla BioHealer devices, which emit biophotons in biologically relevant wavelength ranges.

Methods: This case report documents photographic, functional, and subjective outcomes in two patients after consistent daily use of Tesla BioHealer devices. The first patient, a 64-year-old female with both MG and RA, used one device continuously for 56 days, later increasing to two. The second patient, a 70-year-old female with MG, used two devices daily for four weeks; her spouse, with chronic obstructive pulmonary disease (COPD)/emphysema, also underwent biophoton exposure.

Results: In the first case, baseline photographs revealed pronounced swelling and deformity of the hands consistent with advanced RA and MG-related muscle weakness. After treatment, marked reductions in swelling and deformity were observed, alongside improved joint mobility, enhanced comfort, and greater systemic vitality. In the second case, the patient reported enhanced muscle strength, reduced fatigue, and improved quality of life, while her spouse reported better breathing and reduced reliance on nebulizer therapy. These changes were corroborated by family members and treating clinicians.

Conclusion: These cases provide preliminary evidence that biophoton therapy may improve both structural and functional outcomes in complex autoimmune and neuromuscular conditions. Although limited by anecdotal design and lack of standardized clinical measures, the speed and magnitude of observed benefits support the need for controlled clinical trials to further assess the role of biophoton-generating devices in MG, RA, and related disorders.

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Introduction

Myasthenia gravis (MG) is a chronic autoimmune disorder of the neuromuscular junction characterized by fluctuating skeletal muscle weakness due to impaired synaptic transmission, most often caused by autoantibodies targeting the acetylcholine receptor (AChR) or associated proteins such as muscle-specific kinase (MuSK) [1-3]. Clinically, MG manifests as variable weakness affecting ocular, bulbar, limb, and respiratory muscles, and may lead to life-threatening myasthenic crises. Despite advances in diagnosis and management, treatment remains challenging, with many patients requiring long-term immunosuppressive therapy and experiencing incomplete remission or significant side effects [1-3].

Rheumatoid arthritis (RA) is another chronic systemic autoimmune disease that affects approximately 0.5-1% of the global population, leading to persistent synovial inflammation, joint deformity, and systemic symptoms such as fatigue, anemia, and cardiovascular comorbidities. In RA, as in MG, the immune system dysregulates self-tolerance, resulting in chronic inflammation and progressive tissue damage [4]. Patients with both MG and RA represent a particularly complex therapeutic challenge, as the coexistence of two autoimmune pathologies can amplify functional impairment, increase the treatment burden, and complicate disease management strategies.

Current consensus guidelines for MG and RA rely on clinical trial data obtained under highly selective inclusion and exclusion criteria, often over short observation periods, which limits their applicability to patients with complex, multi-morbid presentations [5]. Furthermore, even among patients eligible for standard-of-care therapies, substantial minorities exhibit suboptimal responses or

intolerance to treatment. These realities underscore the need for innovative, non-invasive interventions capable of complementing existing medical regimens while addressing functional outcomes and quality of life.

Biophoton-based therapies have emerged as a novel approach with potential relevance for autoimmune and neuromuscular disorders. Biophotons ultraweak photon emissions in the ultraviolet to near-infrared range are generated by living cells during oxidative metabolic processes and may play roles in intracellular and intercellular signaling [6,7]. Laboratory studies have shown that biophoton emissions correlate with oxidative stress, mitochondrial function, and the redox state of biological systems [6,7]. Therapeutic biophoton-generating devices, such as the Tesla BioHealer, are designed to emit photons within biologically relevant wavelength ranges, with the aim of modulating cellular repair, enhancing mitochondrial energy production, and reducing inflammatory signaling [8-23].

Clinical and anecdotal evidence has begun to suggest broad applications of biophoton therapy, including functional recovery in neurodegenerative diseases, chronic pain syndromes, and vascular pathologies [8-23]. Previous reports have documented remarkable improvements in cases of severe muscular atrophy with multiple gene mutations, including enhanced mitochondrial and blood cell function, reversal of systemic dysfunction, and restoration of physical activity levels from bed-bound status to running long distances [4]. These observations suggest that biophoton therapy may exert multifactorial effects improving neuromuscular transmission, reducing inflammation, and supporting tissue regeneration which could be beneficial in conditions such as MG and RA.

Here, we present two case reports of patients with MG one with concomitant RA who experienced notable structural, functional, and systemic improvements following consistent use of Tesla BioHealer devices. In one case, photographic documentation revealed significant resolution of joint swelling and deformity; in the other, enhanced muscle strength and reduced fatigue were observed. These cases provide preliminary evidence supporting further investigation into biophoton therapy as an adjunctive treatment for autoimmune and neuromuscular disorders.

Case 1 Presentation: Myasthenia Gravis, Rheumatoid Arthritis
The 64-year-old female patient had a long-standing history of both RA and MG. Despite standard medical management under the care of a neurologist and rheumatologist, the patient experienced significant joint swelling, deformity, and limited mobility. Baseline photograph was prior to the new therapy (Figure 1).

Figure 1: Baseline Hand Presentation before Biophoton Treatment. Dorsal view of the Patient's Right Hand showing Pronounced Swelling over the Metacarpophalangeal and Proximal Interphalangeal Joints, Skin Wrinkling, and Visible Deformity Consistent with Advanced Rheumatoid Arthritis and Concomitant Muscle Weakness from Myasthenia Gravis. The Skin Exhibits Uneven Texture, and Joint Contours are Obscured due to Inflammation

The patient began using one Tesla BioHealer during the day and night. When she experienced a significant improvement by 8 weeks, she added one more. Below was the result after 56 days of using one BioHealer.

- **Visual Improvement:** Comparing to the baseline photograph, the recent image demonstrated marked reduction in swelling and deformity of the hand (Figure 2)
- **Functional Improvement:** Increased joint mobility and comfort in daily activities.
- **Systemic Effects:** Improved vitality and energy levels.
- **External Validation:** Family and friends expressed surprise at the changes; treating specialists were reportedly "shocked" by the improvement and expressed interest in research.

Figure 2: Hand presentation after Biophoton Treatment. Dorsal view of the Same Hand following a Course of Biophoton Therapy, Demonstrating Marked Reduction in Joint Swelling, Improved Alignment of the Fingers, and Smoother Skin Surface. The Metacarpophalangeal Joints are more defined, and overall Hand Posture Reflects Improved Joint Mobility and Reduced Inflammation, Suggesting Functional Recovery and Symptomatic Relief

The patient subsequently referred to Tesla BioHealer information to her neurologist and rheumatologist. Four of the patient's sisters began using Tesla BioHealers after witnessing her improvement.

Case 2 Presentation: Myasthenia Gravis and COPD/ Emphysema - Dual Improvement with Tesla BioHealers
A 70-year-old woman with a diagnosis of myasthenia gravis experienced significant improvement in her condition following biophoton therapy. Before treatment, she reported persistent muscle weakness, joint discomfort, and difficulty with daily activities. After completing four weeks of daily therapy using two Tesla BioHealers, she noted increased muscle strength, reduced fatigue, improved joint mobility, and an overall rise in energy levels. The improvement in hand function reflected not only greater muscle strength but also a substantial enhancement in her quality of life. Her husband also reported notable improvement in chronic obstructive pulmonary disease (COPD)/emphysema after consistent use of two Tesla BioHealers. He positioned one device on each side of his body during sleep and placed them on either

side of his recliner during daytime rest or naps. Within a short time, he experienced a marked increase in energy and much easier breathing. Prior to therapy, he required his nebulizer several times a day; after biophoton treatment, his need for nebulizer use became infrequent.

Both patients expressed strong enthusiasm for the early results and optimism for continued progress. They affirmed their confidence in technology and expressed gratitude for the benefits they had experienced to date.

Discussion

These two case reports highlight the potential therapeutic value of biophoton-generating devices in autoimmune and neuromuscular disorders. Both patients with MG, one with concomitant RA, experienced rapid and clinically meaningful improvements in structural, functional, and systemic domains after several weeks of consistent Tesla BioHealer use. Photographic documentation and subjective reports demonstrated reduced joint swelling, improved mobility, enhanced muscle strength, and increased vitality. Such multidimensional benefits, particularly in the setting of dual autoimmune pathology, underscore the need to explore biophoton therapy as a novel adjunctive intervention.

Mechanistic Considerations

Although the precise biological mechanisms remain to be elucidated, several plausible pathways may explain the observed improvements. Biophotons are known to reflect and influence oxidative metabolism, mitochondrial function, and cellular communication [22,23]. Enhanced mitochondrial energy production may improve neuromuscular transmission, addressing a core deficit in MG pathophysiology [1-3]. Similarly, modulation of oxidative stress and inflammatory cytokine activity could attenuate the synovial inflammation and tissue degradation characteristic of RA [4]. By promoting cellular repair and restoring bioenergetic balance, biophoton therapy may exert system-wide effects that manifest both structurally (e.g., reduced swelling and deformity) and functionally (e.g., improved mobility and strength).

Comparison to Standard Therapies

Current treatments for MG and RA largely rely on immunosuppressive or immunomodulatory regimens, including corticosteroids, biologics, and targeted small molecules. While these approaches can be effective, they are associated with substantial side effects and incomplete responses in many patients [4,21]. Moreover, individuals with dual autoimmune conditions face cumulative treatment burdens, polypharmacy risks, and heightened vulnerability to adverse effects. The present cases suggest that biophoton therapy, as a non-invasive and device-based approach, may complement pharmacological treatments by addressing energy metabolism and inflammation through distinct, non-immunosuppressive mechanisms [5-20].

Broader Clinical Implications

The rapidity and magnitude of changes in these cases are noteworthy. In one patient, visible reduction in joint swelling and deformity were evident within eight weeks, corroborated by family members and treating physicians. In another, improved neuromuscular function translated into enhanced quality of life, with secondary benefits reported in her spouse with chronic obstructive pulmonary disease. Such systemic effects suggest that biophoton therapy may not only target autoimmune and neuromuscular disorders but also improve comorbid conditions by supporting fundamental cellular processes [5-20].

Limitations

As with all case reports, several limitations must be acknowledged. The absence of standardized clinical outcome measures, blinded assessments, or biomarker validation limits the strength of conclusions. Placebo effects cannot be excluded, particularly given the subjective nature of some reported outcomes. Furthermore, the number of patients is small, and their individual disease trajectories may not be representative. Nevertheless, the corroborating photographic evidence, external validation by family and clinicians, and the consistency of improvements across multiple domains lend weight to the observed findings.

Future Directions

The present cases provide a strong rationale for systematic investigation of biophoton therapy in MG, RA, and related disorders. Controlled clinical trials should incorporate objective outcome measures, including quantitative muscle testing, inflammatory biomarkers, mitochondrial function assays, and imaging modalities, to rigorously evaluate therapeutic efficacy. Longitudinal studies will also be needed to determine durability of benefit, optimal treatment protocols, and potential synergy with standard pharmacotherapies. Given the pressing need for safe, non-invasive adjunctive options, biophoton-generating devices warrant serious consideration as a novel therapeutic modality in neuroimmunological and rheumatological care [1-4,21-23].

Conclusion

Clinical Significance: These two cases illustrate that biophoton therapy, delivered via Tesla BioHealer devices, may provide rapid and notable improvements in patients with myasthenia gravis (MG) and rheumatoid arthritis (RA). Observed benefits included reduced joint swelling and deformity, enhanced muscle strength, improved mobility, and increased vitality. Such outcomes are clinically meaningful, particularly in patients with dual autoimmune pathologies where conventional therapies often provide incomplete relief.

Next Steps: While compelling, these findings remain preliminary and anecdotal. Rigorous evaluation in well-designed clinical trials is required to validate therapeutic efficacy. Future studies should employ standardized neuromuscular assessments, quantitative imaging, inflammatory biomarkers, and longitudinal follow-up to establish durability of response and define optimal treatment parameters.

Translational Potential: The observed improvements extend beyond disease-specific outcomes, suggesting systemic benefits of biophoton therapy. If confirmed in controlled studies, this non-invasive, device-based intervention could serve as an adjunctive strategy in neuroimmunological and rheumatological care, complementing existing pharmacological regimens while minimizing treatment burden and adverse effects.

Patient Consent and Ethics Statement

Written informed consent was obtained from the patients for publication of this case report and the accompanying clinical images. All identifying details have been removed to ensure anonymity. This case report was conducted in accordance with the principles of the Declaration of Helsinki.

Highlights

- First documented case of functional and structural recovery in myasthenia gravis (MG) and rheumatoid arthritis (RA) using a non-invasive, biophoton-emitting device.
- Photographic evidence demonstrated marked reduction in

joint swelling and deformity in a patient with MG and RA after eight weeks of therapy.

- Patients reported enhanced muscle strength, reduced fatigue, improved mobility, and increased vitality, highlighting broad systemic benefits.
- A comorbid case of COPD/emphysema showed notable respiratory improvement, with reduced reliance on nebulizer therapy.
- Findings suggest biophoton therapy may serve as a safe, adjunctive treatment modality in autoimmune and neuromuscular disorders, warranting further clinical investigation.

Impact Statement

This case report provides the first documented evidence of functional and structural recovery in patients with myasthenia gravis and rheumatoid arthritis following consistent use of a biophoton-emitting device. Photographic and clinical improvements including reduced joint swelling, improved muscle strength, and enhanced systemic vitality demonstrate the potential of biophoton therapy as a novel, non-invasive adjunct to conventional treatment. These findings highlight an emerging therapeutic avenue that addresses unmet needs in autoimmune and neuromuscular care, warranting further controlled clinical investigation.

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