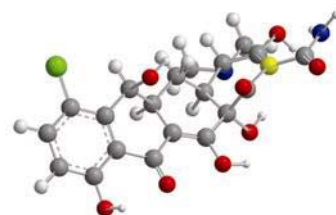


Photosensitivity during Recovery from Th1 Inflammatory Disease



Background

It is well known that photosensitivity is associated with 'autoimmune' disease. Dr. Marshall's research on the pathogenesis of Th1 inflammation explains the role the steroid hormones, Vitamins D (the 'sunshine' vitamin), play in the disease process, photosensitivity and recovery^{1,2,3}. The Research Team is getting many inquiries from people who have heard the 'Marshall Protocol' (MP) is successfully inducing recovery from 'autoimmune' and other Th1 diseases but have reservations about whether they could adapt their lifestyle to deal with any photosensitivity which may emerge during the healing process.

Up until now, most of our clinical experience has been with folks who were so ill they were unable to work or to tolerate even moderate outdoor activities. Others were sufficiently sick to be motivated to make accommodations in their workplace and home in order to avoid light. When they began the protocol, these very symptomatic, early-adopters almost always noticed a high level of photosensitivity (which resulted in an emergence or an increase in neurological symptoms during and/or after exposure to sunlight).

However, a recent re-evaluation of reports from our enlarged patient cohort has led us to the conclusion that **people who are less ill may not experience significant photosensitivity**. We now encourage those who are suffering from a Th1 inflammatory condition to commence a therapeutic probe with the Marshall Protocol medications, even if they cannot, or do not want to, avoid sunlight. This document seeks to guide the essential consultative process between patient and physician on the issue of photosensitivity in Th1 disease.

Basics

Our main concern has been, and will always be, the safety of folks during their recovery on the MP. Many people, with apparently minor symptoms of Th1 inflammation, do not realize they are actually quite ill. It often is just not possible to know if someone has significant sub-clinical inflammation until the Benicar blockade is in place, thus allowing the innate immune system to function properly again^{1,3}. The decision to commence the MP, especially if diligent sunlight avoidance is not practical or desirable, should be made between a patient and their physician, after a careful physical assessment and a thorough discussion of the options.

Hypersensitivities to sunlight usually occur only during the first 1-2 years of recovery and primarily in folks with extensive Th1 inflammation. The symptoms are typically merely unpleasant, usually resulting in neurological phenomena such as eye photosensitivity, headache and fatigue. We do not currently believe that exposure to sunlight, even though it raises the level of 1,25-D, causes a significant retardation of the bacterial killing or significantly inhibits overall long-term healing as long as the patient's level of 25-D is maintained below 12ng/ml..

Photosensitivity symptoms can occur within minutes and up to 3 days after exposure. Those pursuing the MP who expose themselves to the outdoors or to natural and fluorescent light indoors will soon know if they can tolerate light, and to what degree, based on their symptoms. For more information, please see *The Effect of Sunlight/Daylight and Bright Lights on Persons with Inflammatory Disease* <http://tinyurl.com/5kyef>

It is also important that folks learn to differentiate between Herxheimer symptoms and their photosensitivity symptoms because reducing light exposure may be necessary for some to control photosensitivity symptoms. For more information, see *Jarisch-Herxheimer Reaction* <http://tinyurl.com/9gccf>

Intolerable symptoms

While rare, it is important to note some folks may be at high risk for an acute adverse event² caused by sunlight exposure. All patients should be instructed regarding adverse symptoms to report to their physician, and how to manage a significant adverse event should it occur. For detailed information, see *What is a cardiac Herx? When should I be concerned?* <http://tinyurl.com/5grv>

There is a small risk that some folks will develop intolerable symptoms because of sunlight exposure or because the innate immune system, once activated by the MP, continues to kill the bacteria. Members are encouraged to report regularly on the website in order to get early help managing symptoms. A wide range of techniques is available to dampen intolerable symptoms. For detailed information, see *My Herxheimer reaction is too strong. What should I do?* <http://tinyurl.com/45kju>

For those very infrequent situations when alteration of MP medications fails to reduce intolerable symptoms, due to a recent breakthrough in our scientific understanding of the Th1 immune disease process, we have been able to validate an temporary immunosuppressive intervention physicians may use. For detailed information, physicians should see *Anticipating, Identifying and Treating Cardiac Herxheimer Symptoms in Patients using the Marshall Protocol* in the private section for health care professionals at the study website.

Conclusion

Some folks, even those with significant Th1 inflammation, may be able to recover on the Marshall Protocol while exposed to various degrees of light. Members who are trialing a 'sun-tolerant' Marshall Protocol should be under the close supervision of their physician. It is very important that all other aspects of the MP are followed carefully. For detailed information, see the *MP Phase One Guideline* <http://autoimmunityresearch.org/phase-1-revised-1aug06.pdf>

Experimentation with different adaptations to light will help folks discover their personal level of photosensitivity, which will gradually change during the healing process. Patients and physicians should be alert for unexpected symptoms and know how to react to them. Those persons who cannot discern the difference between symptoms from photosensitivity and Jarisch-Herxheimer will need to avoid light in order to be successful.

Folks who trial the MP while not avoiding sunlight and who subsequently find they cannot tolerate recovery under these conditions, will then need to decide if they are able to make the needed lifestyle changes or must postpone implementation of the MP. Physicians can now intervene to stop any runaway Herxheimer symptoms with judicious application of immunosuppression (see above).

We encourage questions at www.MarshallProtocol.info. We request that members start their own progress report on the study-site so their experience can be included in our Phase II study cohort data.

References:

1. Marshall TG: **VDR Nuclear Receptor Competence is the Key to Recovery from Chronic Inflammatory and Autoimmune Disease**. Abstract presentation, Days of Molecular Medicine, 2006. Copy available from URL <http://autoimmunityresearch.org/karolinska-handout.pdf>
2. Waterhouse JC, Marshall TG, Fenter B, Mangin M, Blaney G: **High levels of active 1,25-dihydroxyvitamin D despite low levels of the 25-hydroxyvitamin D precursor - Implications of dysregulated vitamin D for diagnosis and treatment of Chronic Disease**. In *Vitamin D: New Research*. Volume 1. Edited by: Stoltz VD. New York: Nova Science Publishers; 2006. ISBN: 1-60021-000-7
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