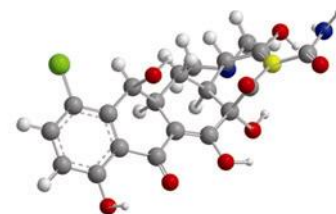


**Autoimmunity Research Foundation
Guidance For Physicians
THE MARSHALL PROTOCOL**

Stage 5: Approaching Recovery



Over-exuberant Immune Response as the Immune System Transitions Back to Full Health

The aim of the Marshall Protocol (MP) is to activate the immune system to kill the Microbiota of intra-phagocytic bacteria which causes chronic inflammatory disease. At some point, the innate immune system will be restored to sufficient functionality that it itself begins to recognize, and kill off, the pathogens (by using the body's many families of anti-microbial peptides). At this point in a small proportion of patients -- usually those who have been most chronically ill -- the immune system can become over-exuberant at this point, resulting in excessive immunopathology. This document describes this phenomenon, and its management.

Th1 disease is caused when the Th1 intra-phagocytic Microbiota causes the innate immune system to stop making its antimicrobial peptides. The bacteria do this by producing substances (eg, the sulfonolipid, Capnine) which block the actions of the Vitamin D Nuclear Receptor (VDR). This receptor transcribes many of the genes for the body's anti-microbial peptides, key to the innate response to bacterial, viral, and fungal, pathogens [1].

The process of recovery on the MP is a journey. Individual response to treatment will vary depending on the extent and type of bacterial load. Anyone may, at some point, transiently experience lifestyle-limiting (even debilitating) immunopathology as part of the recovery process. The MP is unique in being focused on control of immunopathology as it utilizes a variety of methods to kill the pathogens, while keeping symptoms tolerable and lab work acceptable.

The antibiotic combination of Azithromycin Minocycline and Clindamycin (Z/M/C), assisted by Olmesartan activation of the VDR, and avoidance of exogenous Vitamin D, will condition the immune system to kill most of the bacterial species that cause Th1 inflammatory diseases. After a couple years (sometimes a little longer) on the MP, the body again starts expressing its antimicrobial peptides, as the immune system transitions back to full health.

This re-awakening of the innate immune system to recognize and attack the intraphagocytic pathogens, **even in the absence of antibiotics**, is the subject of this document. **Most patients will continue to easily manage their immunopathology during this transition.** Some, with particularly recalcitrant pathogens, may require additional assistance.

In recovery, the immune system's antimicrobial peptides will target more the extensive disease manifestations, such as the pathogens encased by fibrotic tissue, adhesions or scarring. Consequently, surges in the level of immunopathology may be experienced as the body releases and attempts to eliminate the previously hidden bacteria (e.g. in severely compromised lungs, organs or joints). It should be noted at this point in recovery that surges in immunopathology can be caused by physical stress on fibrotic tissue, by physical exertion, or even by excessive coughing.

Intervention Strategy

Adjusting, increasing, or changing antibiotics to control the amount of immunopathology may no longer be an effective strategy. **As a first step**, the palliative action of Olmesartan should be maximized by increasing the Benicar frequency to 40mg every 4 hours. In severe cases it is often

useful to add sublingual boli, 20mg sublingual along with each 40mg oral dose.

As the innate immune system becomes active again, the immunosuppressive actions of Olmesartan become dominant over its role in activation of the VDR, because 1,25-D will recommence its endogenous role as the primary VDR agonist. Benicar then provides dose-dependent immunosuppression by acting on the remaining inflammatory pathways.

It is imperative to continue the Olmesartan at all times, regardless of whether antibiotics are being administered.

When a subject's symptoms surge after an extended period on the MP, the initial strategy is to discontinue Azithromycin. This will often result in a one-time exacerbation of symptoms, particularly from days 10 to 12 (and possibly even out to 4 weeks), as the concentration of the Azithromycin slowly wanes, but in the long run will lead to greater stability. If that helps reduce symptoms, then progressively withdrawing Minocycline and Clindamycin, while modulating Olmesartan, should keep immunopathology under control. In other words, at this stage of recovery, if the antibiotics are now causing too much immunopathology, it is necessary to stop them. Please ask for moderator assistance on the MarshallProtocol.com study-site before any action is taken. We are happy to assist you in any way we can.

If Minocycline and/or Clindamycin are still acting as anti-inflammatory agents and are still helping to control the immunopathology, innate immunity is not dominant, and Minocycline and/or Clindamycin should be continued.

Continue any effective palliative measures such as Oxygen, Guaifenesin, Quercetin, pain medications, etc. An oxygen concentrator is especially helpful in dealing with shortness of breath.

This phase of recovery is a transition period during which the body's innate immunity takes over the job initially done by the MP antibiotics, and the Olmesartan-induced VDR activation. Everyone will experience this encouraging evidence of powerful innate immunity. But only a very few will need to manage the rate of bacteria-killing with all the guile at their disposal.

Immunopathology subsides as the bacterial load is reduced by the recovery process. Ultimately, the return to full health is a matter of waiting for the immune system to eliminate the remaining bacteria.

Helpful Visual Aids:

To help the patient visualize what is happening in their bodies during the disease and recovery phases, Janet Foutin has produced a graphic which diagrammatically shows 6 stages from health, to disease, and back to health again. The graphic can be downloaded from

<http://AutoimmunityResearch.org/VDR-Time-Benicar.pdf>

Stage 1 of that graphic shows the VDR in a healthy innate immune system, activated primarily by 1,25-D. As the bacterial ligand(s) start to block the VDR, the situation progresses to that shown in Stage 2. When Olmesartan is used, it displaces a proportion of the bacterial ligands, and frees up some VDR functionality, and some innate immune function (Stage 3). This document has dealt with the situation shown in Stage 5 of the graphic, as the VDR transitions back to full functionality (Stage 6).

References:

1. Marshall TG: Vitamin D discovery outpaces FDA decision making. Bioessays. 2008 Feb; 30(2). DOI 10.1002/bies.20708

Preprint available from: <http://TrevorMarshall.com/BioEssays-Feb08-Marshall-Preprint.pdf>

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