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What if the Problem, Like Rheumatic Heart Disease from Staphylococcal & Streptococcal Pharyngeal Infections, is the Antibody Response?

Fleming RM* and Fleming MR

Fleming Diagnostic Imaging and Therapeutic Management, LLC & Fleming's Camelot Non-profit; Dallas, TX, USA

***Corresponding author:** Richard M. Fleming, PhD, MD, JD Fleming Diagnostic Imaging and Therapeutic Management, LLC & Fleming's Camelot Non-profit; Dallas, TX, USA, Email: DrRichardMFleming@gmail.com

Letter to Editor

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Abbreviations: RHD: Rheumatic Heart Disease; ITR: InflammoThrombotic Response.

It has long been established that rheumatic heart disease (RHD) following staphylococcal & streptococcal infections is due to antibodies [1] produced in response to the bacterial infection. These antibodies represent an InflammoThrombotic Response (ITR) to the bacteria [2], an ITR that later damages the mitral and aortic valves which appear antigentically similar to the bacteria. This can result in damage to the valves and long term-term consequences; viz. RHD.

Early reports showed some hospitalized patients deteriorating following antibodies produced to the N-terminal domain [3] of the SARS-CoV-2 spike protein. Progression of disease [4] has been seen with other viral infections following antibody production.

These findings, along with the availability to treat SARS-CoV-2 early after infection [5,6] would indicate that like the development of RHD following antibody production, antibody production to SARS-CoV-2 that shares many characteristics with HIV, might not be as promising as once hoped for and like HIV, our best treatment outcomes will depend upon earlier treatment focusing on preventing progression of the viral disease with associated antibody production.

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