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Is rheumatoid arthritis the skeletal manifestation of a mycobacterium avium subspecies paratuberculosis (MAP) infection?

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MAP causes Johne disease in ruminants, a chronic diarrheal intestinal affliction similar to Crohn disease in humans. Humans are exposed to viable MAP in food, pasteurized milk and chlorinated municipal water.

There are increasingly compelling data that Crohn disease is caused by MAP. Although difficult to achieve, these include the detection of MAP DNA, RNA, MAP specific proteins and the culture of MAP from Crohn disease intestine. Additionally, there is a commonality in a genetic defect (NOD2/Card15) in Crohn disease, Johne disease and leprosy. This defect impairs the host immune response (in both humans and ruminants) to mycobacterial infections.

Medications called "anti-inflammatories" "immune-modulators" and "immune-suppressants," are used to treat multiple autoimmune and inflammatory diseases, including Crohn disease and rheumatoid arthritis. We postulate that these medications have prokaryotic in addition to eukaryotic activity.

There are unrefuted data that a number of these drugs cause dose dependent inhibition of MAP in culture. These include 5-ASA, methotrexate, 6-mercaptopurine, azathioprine, cyclosporine A, rapamycin, tacrolimus, the piperidine 2-6 dione moiety of thalidomide and the thioamidesmethimizole and 5-proportiouricyl. By definition, this inhibition makes these agents anti-MAP antibiotics.

We conclude that the medical profession has, unknowingly, been treating MAP since 5-ASA was introduced in 1942. We further suggest that the multiple "autoimmune" diseases that are empirically treated with the antiMAP agents enumerated above, should be evaluated as being infectious diseases caused by MAP; and that these include Crohn disease and rheumatoid arthritis.

Biography

Dr. Robert Greenstein, MD FACS FRCS (Eng.) graduated from the Royal London Hospital UK in 1974 and completed his surgical residency at The Mt. Sinai Hospital NY in 1981. He is Consultant Dept. of Surgery and Director of the Laboratory of Molecular Surgical Research VAMC Bronx NY. He has more than 80 peer-reviewed publications, has given more than 100 lectures in the USA and worldwide is on the editorial board or is a reviewer for 31 professional journals.

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