

IS CROHN'S ON THE MAP YET?

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The link between *Mycobacterium* subspecies *paratuberculosis* (MAP) and Crohn's disease continues to be controversial. Crohn's disease is considered to be associated with immune dysregulation. It can respond to immunomodulators such as corticosteroids and infliximab and immunosuppressants (6MP, azathioprine, cyclosporin etc). It has also been postulated that the inflammatory changes are a reaction to an infective agent/s. The most plausible candidate pathogen to date is MAP. Indeed Koch's postulates may well have been fulfilled for MAP and Crohn's disease (1) even though they still have not been met for *M leprae* in leprosy. MAP is found in human and bovine milk and human blood, is not readily killed by pasteurisation, is ubiquitous in the environment, can be detected in >90% of Crohn's biopsies and Crohn's disease progress appears to be altered by appropriate (anti-MAP) antibiotics but not by anti-TB drugs inactive against MAP. Recent studies with more specific drugs such as macrolides and specialised rifamycins have shown surprising results. Nevertheless, unanswered questions remain. Does the recent finding of MAP in blood give us a surrogate marker of intestinal mucosal breach or presence of Crohn's? If MAP was causal for Crohn's then does its detection in ulcerative colitis represent an incorrect diagnosis? If MAP behaves like a true pathogen in Crohn's disease then why are immunosuppressants effective treatments? Furthermore, if one of the most documented and worst drawbacks of infliximab to treat Crohn's reactivation of latent *M. tuberculosis*, why then is MAP not activated? Is anti-MAP chemotherapy active against MAP or is it treating the luminal organisms rather than MAP? How do we explain cure of Crohn's in patients undergoing bone marrow transplant and its improvement with GM stimulating factor?

As with early days of the *Helicobacter pylori*/ulcer/cancer/lymphoma theory - we are faced with many unanswered questions. The above and other questions will be addressed in the presentation.