

MAP AND CROHN'S DISEASE

MAP (mycobacterium avium subspecies paratuberculosis) is a bacteria that causes Johne's disease (paratuberculosis) in cattle, sheep and other livestock. There are some similarities between Johne's and Crohn's Disease. Scientists are studying whether MAP could also play a role in Crohn's in humans.

1

MAP INFECTION IN HUMANS

MAP is found in dairy foods (including pasteurised milk), undercooked meat and drinking water. It's thought that humans can be infected with MAP from eating infected foods or drinking infected water.

2

MAP IN CROHN'S

It's difficult to detect MAP in the body and there's no standard test available. This makes it hard to know how many people with Crohn's have MAP in their gut. Only some people with Crohn's test positive for MAP. But MAP is found more commonly in people with Crohn's than people who do not have Crohn's. MAP is not often found in people with Ulcerative Colitis.

3

A CONNECTION BUT NOT A CAUSE?

Finding MAP in some people with Crohn's does not mean it causes Crohn's – and MAP is also found in people who do not have a health condition. MAP isn't the only bacteria linked to Crohn's. There are many differences between the gut bacteria of people with Crohn's and people who do not have Crohn's. We don't know whether the differences in gut bacteria cause inflammation or whether inflammation causes differences in the gut bacteria. Some scientists think MAP causes Crohn's in people who have certain genes that make them more vulnerable to MAP infections. But much more research is needed to prove this.

4

ANTI-MAP ANTIBIOTICS FOR CROHN'S

You must take a combination of specific antibiotics for many months or years to clear MAP from your body. Some studies show that anti-MAP antibiotics can help people with Crohn's go into and stay in remission – but these studies are mostly low quality. They often had only a very small number of patients. They also didn't look at people who weren't taking anti-MAP treatments to compare the two groups. This makes it hard to draw reliable conclusions. A large clinical trial didn't find a long-term benefit of anti-MAP antibiotics in treating Crohn's. More promising results have come from a clinical trial of a new anti-MAP treatment called RHB-104 (a mix of antibiotics). Early results suggest that RHB-104 may help some people go into and stay in remission when taken in combination with other common Crohn's treatments. Full results have not been published – and must first go through strict expert review.

5

THE MAP VACCINE

Professor Hermon-Taylor at King's College London is developing an anti-MAP vaccine. The aim of the vaccine is to both treat and prevent Crohn's. Crohn's & Colitis UK helped to fund the early lab stages of this research. The MAP vaccine is made by taking a common cold virus that normally infects chimpanzees and changing it so that it looks like MAP. The virus can not multiply in humans. The MAP vaccine is safe for people with weakened immune systems. The vaccine is still in the early phases of testing in humans. In healthy people, it was found to be safe with no serious side effects. Next the researchers will test the vaccine in people with active Crohn's to see if it is safe and effective. This study is ongoing, but recruitment to the trial has now closed.

SUMMARY

While it's possible that MAP could trigger Crohn's in some people, none of the research so far has been able to prove this. Treating MAP is not currently recommended as routine treatment for Crohn's. Targeting MAP may benefit some people with Crohn's, but it probably won't be an effective treatment for everyone. And there's no evidence that it could cure Crohn's. We recognise the importance of MAP research – and welcome the development of new treatments for people with Crohn's and Colitis.

WE'RE HERE FOR YOU

For more information on Crohn's and Colitis please contact us:

 CROHNSANDCOLITIS.ORG.UK

 0300 222 5700

 /CROHNSANDCOLITISUK

 @CROHNSANDCOLITISUK