Study Shows Gut Bacteria Has Link to RA

by KATE TURNER

Gut Bacteria Can Help Predict, Prevent, and Treat RA

For the 1.5 million Americans with rheumatoid arthritis (RA), the cause of their condition is becoming clearer and clearer. New research is showing a link between gut bacteria and RA, giving doctors more information for predicting, preventing, and treating the disease.

Dr. Veena Taneja, an immunologist at Mayo Clinic's Center for Individualized Medicine, recently published two studies discussing this probable link.

One of the studies looked at biomarkers — substances that signify disease — that could predict someone's susceptibility to developing RA. Dr. Taneja's team noted rare gut bacteria that differ in healthy people versus people with RA.

"Using genomic sequencing technology, we were able to pin down some gut microbes that were normally rare and of low abundance in healthy individuals, but expanded in patients with rheumatoid arthritis," she said.

Using this research, Dr. Taneja said, scientists can conduct further studies and construct a profile for who is likely to develop RA, and how their disease will progress.

In the second study, Dr. Taneja treated mice — whose immune systems and arthritis mirrored those of humans — with another kind of bacterium. The mice experienced reduced symptom frequency and severity, and fewer inflammatory conditions related to RA.

Because the bacterium is already a part of a healthy gut, the treatment saw fewer side effects than traditional medications.

RA medications are meant to put a stop to inflammation and flare-ups, relieve symptoms, prevent damage to the joints and organs, improve wellbeing, and reduce long-term complications. Current treatment can be quite intense, and side effects (depending on the medication) can include:

- Stomach upset and ulcers
- Increased risk of blood clots, heart attack, and stroke
- Bone loss

- Inability to fight off infections
- Hair loss
- Dizziness

Though for many it's too late to predict and prevent RA, with further research and human trials to study gut bacteria and the link to this disease, a new treatment could be in sight — without the nasty side effects.