Ketogenic Eating Plan And Gut Microflora: The Plot Thickens

Concern that ketogenic diets may compromise bacterial diversity in the gut appear to be offset by the effect on harmful fungi, with a net effect of tipping the balance toward health.

November 7, 2020 By Mike Barr

How the ketogenic influences the microbiota is a favorite research topic today. Some data suggests that ketogenic diets may compromise the bacterial diversity in the gut, for example, decreasing the common Bifidobacteria. And in a recent single-center, randomized, double-blind crossover pilot study published in the journal EBioMedicine, modifiable fungi in the gut of patients with mild cognitive impairment (MCI) was identified. Principal investigator Hariom Yadav, assistant professor of molecular medicine at Wake Forest School of Medicine, and his team analyzed Alzheimer's markers in cerebrospinal fluid and gut bacteria.

Firstly, the researchers identified fungal microbes in the gut by sequencing the rRNA ITS1 gene. The 17 participants were older adults, 11 of which had an existing MCI, and six had normal brain functioning. Yadav and his team used a six-week dietary intervention, whereby the volunteers consumed a modified Mediterranean ketogenic diet or the American Heart Association Diet. They found that the gut microbiome could be modulated through the Mediterranean ketogenic diet. Specifically, harmful fungi in the gut are reduced, which might, in turn, reduce the onset of neurological disease processes.

Yadav concluded his study that dietary habits such as eating a ketogenic diet can reduce harmful fungi in the gut, which might help influence disease processes in the brain.

The lead investigator of the UCSF study, Peter Turnbaugh, PhD concluded, "...the effects of ketogenic diets on the microbiome are not just about the diet itself, but how the diet alters the body's metabolism, which then has downstream effects on the microbiome." He continued, "For many people, maintaining a strict low-carbohydrate or ketogenic diet is extremely challenging, but if future studies find that there are health benefits from the microbial shifts caused by ketone bodies themselves, that could make for a much more palatable therapeutic approach.

In practical terms, staying in a place of even mild mild ketosis can require superhuman dedication (and is reported to be much more difficult for thin folks) and thus probably not a long-term health strategy. But particularly for people trying experiencing neurological symptoms (and also folks

who've tried to lose weight by other means with little results), a one- or two-month ketogenic kind of metabolic "reset" has been reported by many to be very effective.

There are folks for whom ketogenic eating plan may not be appropriate-- compromised kidney function, pregnant or breastfeeding, gallbladder dysfunction, history or pancreatitis, or chronically elevated cortisol levels (just about all of these days, so maybe better to wait until after the inauguration?). Some additional links here and here.

About Mike: Michael Barr, DAOM, IFMCP(c) did his acupuncture and Chinese herbal medicine training in Los Angeles and New York and now practices in NY and NJ. More recently he has become involved with the Institute for Functional Medicine. Reach out to him at his new telemedicine platform, Root Resolution Health or for an invitation to his discounted herbal medicine and nutritional supplements dispensary. You might also read more (mostly about acupuncture visits) at his NCCAOM listing here.
