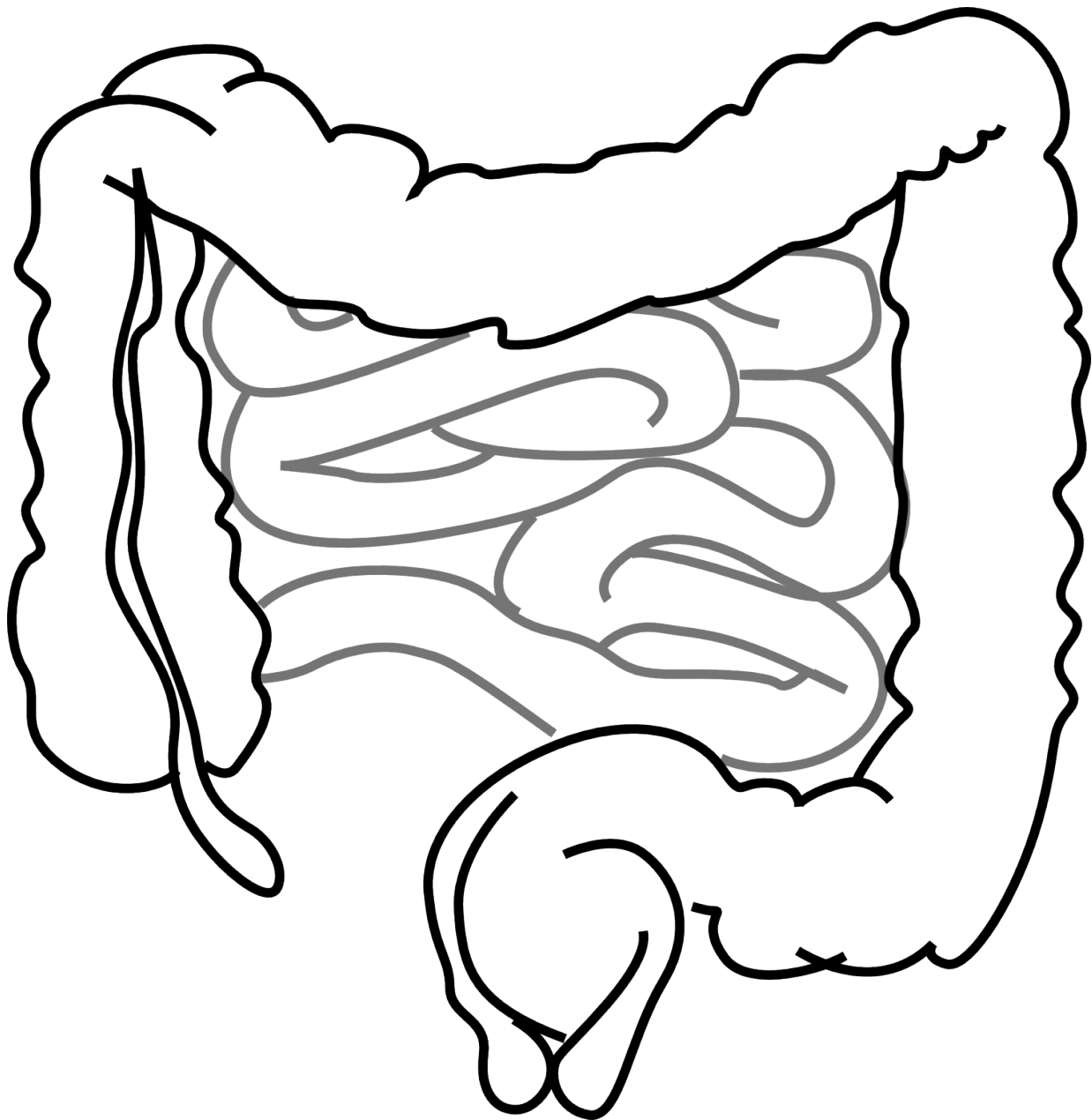


Link between IBD and Parkinson's might allow doctors to slow down condition

May 21 2018



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Doctors may be able to modify or slow down the progress of the neurological condition Parkinson's disease in the future by spotting signs of it in patients with inflammatory bowel disease (IBD), suggest a study published in the journal *Gut*.

Danish researchers found [patients](#) with IBD appeared to have a 22% greater risk of developing Parkinson's disease in a study that monitored participants for almost 40 years.

IBD, Crohn's disease and ulcerative colitis are chronic conditions with onset in young adulthood.

It has already been suggested in previous studies that inflammation plays a role in the development of Parkinson's disease and multiple system atrophy.

Enteric inflammation—the main symptom of [inflammatory bowel disease](#)—can occur in patients with Parkinson's disease and may reflect the earliest manifestations of the neurological condition's development.

Experts have suspected for some time that there may be a 'gut-brain axis' where the intestinal environment influences the functioning of the central nervous system and intestinal imbalance may precede and cause Parkinson's disease.

Therefore, a team of Danish researchers led by Dr. Tomasz Brudek of the Research Laboratory for Stereology and Neuroscience, Bispebjerg and Frederiksberg Hospital, Copenhagen, set out to examine whether

IBD was associated with risk of Parkinson's disease and multiple system atrophy.

They carried out a nationwide population-based cohort study involving all individuals diagnosed with IBD in Denmark between 1977 and 2014—76,477 people—and more than 7.5 million non-IBD individuals from the general population, who were comparable in terms of gender, age and vital status.

All participants were followed from IBD diagnosis/index date to the occurrence of Parkinson's disease and multiple system atrophy, using data from the Danish National Patient Register.

During the 37-year study period, 335 patients with IBD (0.4%) and 39,784 non-IBD individuals (0.5%) were diagnosed with Parkinson's disease, whereas 13 patients with IBD (0.02%) and 866 non-IBD individuals (0.01%) were diagnosed with multiple system atrophy.

Analysis of the results showed that patients with IBD had a 22% higher risk of Parkinson's disease compared with non-IBD individuals.

This increased risk was present independent of age at IBD diagnosis, gender or length of follow-up.

The overall incidence of multiple system atrophy was low in the study, but analysis suggested a tendency towards higher risk (41% higher) of developing [multiple system atrophy](#) in patients with IBD compared with non-IBD individuals. The estimates were similar for women and men.

There was a 35% greater risk of parkinsonism among patients with [ulcerative colitis](#) but not a significantly higher risk among patients with Crohn's disease.

This was an observational study, so no firm conclusions can be drawn about cause and effect, but the authors said they believed their work was the first epidemiological study investigating the risk of parkinsonism in an unselected, nationwide cohort of patients with IBD with long-term follow-up—patients were followed for more than 8 million person-years.

The authors concluded: "The study suggests that clinicians should be aware of symptoms of parkinsonism in patients with IBD, and the study demonstrates the need for further investigation into the role of intestinal inflammation and brain gut-microbiome axis in the aetiology of parkinsonism.

"The identification of risk factors associated with prodromal phases of Parkinson's disease may allow for early intervention studies that could modify or slow down [disease](#) progress."

More information: Inflammatory bowel disease increases the risk of Parkinson's disease: a Danish nationwide cohort study 1977-2014, *Gut*, gut.bmj.com/lookup/doi/10.1136/gutjnl-2017-315666

Provided by British Medical Journal

Citation: Link between IBD and Parkinson's might allow doctors to slow down condition (2018, May 21) retrieved 16 April 2024 from <https://medicalxpress.com/news/2018-05-link-ibd-parkinson-doctors-condition.html>

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