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Functional Medicine

QUOTE GM #52

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Title

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GUT MICROBIOTA TRIGGERS PARKINSON'S PATHOGENESIS!

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Parkinson's disease and the gastrointestinal microbiome.

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Abstract

Recently, there has been a surge in awareness of the gastrointestinal microbiome (GM) and its role in health and disease. Of particular note is an association between the GM and Parkinson's disease (PD) and the realisation that the GM can act via a complex bidirectional communication between the gut and the brain. Compelling evidence suggests that a shift in GM composition may play an important role in the pathogenesis of PD by facilitating the characteristic ascending neurodegenerative spread of α -synuclein aggregates from the enteric nervous system to the brain. Here, we review evidence linking GM changes with PD, highlighting mechanisms supportive of pathological α -synuclein spread and intestinal inflammation in PD. We summarise existing patterns and correlations seen in clinical studies of the GM in PD, together with the impacts of non-motor symptoms, medications, lifestyle, diet and ageing on the GM. Roles of GM modulating therapies including probiotics and faecal microbiota transplantation are discussed. Encouragingly, alterations in the GM have repeatedly been observed in PD, supporting a biological link and highlighting it as a potential therapeutic target.

KEYWORDS: Biomarker; Gastrointestinal microbiome; Gastrointestinal microbiota; Gut dysbiosis; Medications; Parkinson's disease

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