Cognition and microbiota: perspectives on possible interaction

Cognitive function is a process that makes every human a different person. It is also a privilege which dementia may take from us. With the development of neuroscience, we have learned that cognition not only depends on isolated functioning of brain but consists of many different interactions in human body. Onset of cognitive impairment, a condition associated with further development of dementia, has many risk factors such as depression, cardiovascular risk factors, malnutrition and many others. One of the latest highlights is a connection between gut microbiota, a term used to describe all microorganisms living in human intestines, and brain functioning. It has been proven that, alterations in gut microbiota structure are connected with presence of other disorders, for example psychoneurological or gastrointestinal. Data from recent studies suggests that, it can be involved in pathophysiology of cognitive impairment through variable pathways including production of neuroactive substances, modulation of vagal activity and other. However there is lack of human studies temporarily limiting any clinical usage of this information. Nevertheless existence of gut-brain axis and role of intestinal microbiota has great potential for future investigations and development of novel therapeutic strategies for people with neurodegenerative disorders.

Biography

Marija Litvinenko has obtained her graduation form Faculty of Medicine, Riga Stradiņš University in 2018. Currently, she is a first year Resident student in Neurology at Pauls Stradiņš Clinical University Hospital. She has participated in international conferences in Warsaw, Kaunas, Riga, presenting case reports and research works. She is also one of the former Project Managers in IFMSA-Latvia.

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