

Exploring the correlation between body constitution of an individual as per Ayurveda and gut microbiome in multi ethnic urban population in India



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Introduction

Prakriti (body –mind constitution of an individual) is a conventional, customized and unique the understanding of which is essential for the personalized medicine described in Ayurveda, Indian System of Medicine. Based on the Doshas(functional, bio humoral unit in the body) individuals are categorized into three major prakriti- Vata, Pitta and Kapha. The human gut micro biome hosts plenty of highly diverse and metabolically active microorganisms, mainly dominated by the bacteria, which are known to influence the physiology of an individual. Few researches have shown the correlation between the prakriti and the biochemical parameters. In this study, an attempt was made to explore any correlation between the prakriti (phenotype of an individual) with the Genetic makeup of the gut micro biome in healthy individuals.

Materials and methods:

270 multi ethnic, healthy volunteers of both the sex with the age group between 18 to 40 years, with no history of antibiotics in last 6 months were recruited into three groups of Vata, Pitta and Kapha. The Prakriti of the individual was determined using Ayusoft, a software designed by CDAC, Pune, India. The volunteers were subjected to initial screening for the assessment of their height, weight, Body Mass Index, Vital signs and Blood investigations to ensure they are healthy. The stool and saliva sample of the recruited volunteers were collected as per the standard operating procedure developed and the bacterial DNA was isolated using Qiagen kits. The extracted DNA was subjected to 16s rRNA sequencing using the Illumina kits. The sequencing libraries targeting the variable V3 and V4 regions of the 16s rRNA gene. Paired sequencing was done on MiSeq system and data were analyzed using the CLC Genomics workbench 11

Results:

The 16s rRNA sequencing of V3 and V4 region showed diverse pattern in both the oral and stool microbial DNA. The study did not reveal any specific pattern of bacterial flora amongst the prakriti. All the p-values were more than the effective alpha values for all OTUs in both buccal cavity and stool samples. Therefore, there was no observed significant enrichment of any OTU in the patient samples from either buccal cavity or stool samples.

Conclusion:

In healthy volunteers of multi ethnicity, due to the influence of the various factors, correlation between the prakriti and the gut microbiome was not seen.

Biography

Shalini TV has completed MD in Ayurveda at the age of 27 years from Rajiv Gandhi University of Health Sciences, Karnataka, India. She is currently working as Research Associate in Ramaiah Indic Specialty Ayurveda, an Ayurveda treatment centre and Research Organisation. She has published around 6 papers in reputed Journals. She is also a part time practitioner of Ayurved

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