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# Gut Microbiota and Their Modulating Role in Pregnant and Non-pregnant Hypertensive Rats Fed with Selected Local Wild Beans

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**Abstract :** Probiotic supplementation has been known to be associated with a lower prevalence of hypertension. Against these backdrop, activities of the gut microbiota from hypertensive induced pregnant and non-pregnant rats as mediated by the soluble and indigestible fraction of carbohydrates derived from Otiliand fermentedIru were studied in this present work. Microbiota from hypertensive induced non- pregnant rats fed with Otili and Iruhad Proteus vulgaris + Staphylococcus aureus. However, hypertensive induced pregnant rats fed with Otilipredominantly contained Proteus vulgaris + Bacillus lichniformiswhile the group fed with Iruhad Staphylococcus aureus + Bacillus lichniformis. Thus, showingdysbiosis in hypertensive induced rats is influenced by pregnancy. Further In-vitro study showed Proteus vulgaris playing a key role in the fermentative process of the indigestible fraction of carbohydrates while Esherichia coli played the key role in the fermentative process of the soluble fraction of carbohydrates in all the bean samples. This dysbiosis of the gut microbiota, as seen in hypertension in rats in this present study, might be part of the strategies for the prevention and treatment of this Non-Communicable Disease.

**Keywords :** probiotic, microbiota, dysbiosis, hypertension
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