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A functional study to relate the prevalence of *H. pylori* infection to starch rich diet on the island of St. Vincent and the Grenadines

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Helicobacter pylori is an important risk factor for gastritis and gastric carcinoma. It is a Gram-negative, flagellated, motile bacterium that adapts well to the acidic gastric environment by elucidating the enzyme urease which neutralizes the gastric pH, allowing the bacterium to adhere to the gastric mucosa causing infection and inflammation leading to peptic ulcers. However, other important factors are thought to be responsible, such as diet, and familial genetic predisposition. A study by Mard et al. in 2014 showed adequate nutritional status, especially high consumption of fruits, vegetables, and vitamins appear to protect against the pathological consequences of *H. pylori* infection. The aim of our study was to evaluate the association of dietary consumption of starch rich diet common to the island of St. Vincent and the Grenadines to *H. pylori*. This was a cross-sectional study conducted between January and March of 2017. Dietary consumption of participants was assessed using food frequency questionnaire approved by the institutional research committee (IRC) of St. James School of Medicine along with informed/ signed consent from 200 willing participants. *H. pylori* infection status was diagnosed using the one-step *H. pylori* blood test kit. Among a sample size of 200 (n=200); 14.5% were positive for *H. pylori* infection while 85.5% were negative. The data among the 14.5% were statistically insignificant between the sexes (males=16%) and (females=13%) ($p>0.05$). Among the eight variables, family history and incidence of *H. pylori* was in accordance with established data with 33% showing positive with family history vs. 13% without; with a statistically significant data ($p=0.031$). A higher trend was noticed for complex carbohydrate consumption in *H. pylori* infected individuals but the data was statistically insignificant ($p=0.63$); but a larger sample size would have benefited the research towards the hypothesis. Among the food groups; starch, protein and vegetables were of higher consumption than other food groups but the data was statistically insignificant ($p=0.61$).

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