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## The *cagA* and *vacA* genes of *Helicobacter pylori* antibiotics resistance isolated from gastritis and peptic ulcer pediatric patients in Vietnam

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**Statement of the Problem:** *Helicobacter pylori* (*H. pylori*) antibiotics resistance is the major cause of failure in eradicating *H. pylori*. Recent studies have showed that the virulence genes associated with *H. pylori* antibiotics resistance have been isolated from adult peptic ulcer patients. To date, however, there is still lack of evidence about this in Vietnamese pediatric children. The objective of this study is to evaluate the association between *H. pylori* antibiotics resistance and the presence of *cagA* and *vacA* genes in pediatric patients.

**Methodology & Theoretical Orientation:** 150 samples of *H. pylori* isolated from 150 infected pediatric patients whose antimicrobial susceptibility showed a resistance to at least 1 of 3 antibiotics: amoxicillin, clarithromycin and metronidazole. The *cagA* and *vacA* genes were detected by using multiplex PCR (Polymerase Chain Reaction), between January, 2012 through September, 2013 in National Hospital of Pediatrics, Hanoi, Vietnam.

**Findings:** The result showed that the *cagA* gene was detected in 34% *H. pylori* strains. The rate of *vacAs1*, *vacAs2*, *vacAm1*, *vacAm2*, *vacAs1/m1*, *vacAs1/m2* and *vacAs2/m2* were 39.3%, 14.7%, 37.3%, 23.3%, 16.7%, 11.3% and 6.6% respectively. 8% strains harboured three virulence genes *cagA*, *vacAm1* and *vacAs1*.

**Conclusion & Significance:** The prevalence of *cagA* and the *vacA* alleles distribution didn't show a significant difference between susceptible and antibiotics resistance groups. Recommendations therefore, it may not be necessary to administrate different treatment regimens for children who are infected by antibiotics resistance of *H. pylori* with *cagA*, *vacA* positive.

### Biography

Thi-Ut Nguyen is a Pediatrician. She has been working as Gastroenterologist in Gastroenterology Department of the National Pediatric Hospital. She has conducted several studies on *Helicobacter pylori* antibiotics resistance of gastritis and peptic ulcer among children.

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