

Review of: "Efficacy of Potassium Competitive Acid Blockers (P-CABs) versus Proton Pump Inhibitors (PPIs) in the First and Second Line Eradication Regimens for *Helicobacter pylori* in Egyptian Patients"

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The antibiotic resistance of *Helicobacter pylori* is an important reason for the failure of eradication treatments, and patient compliance is also one of the substantial factors affecting treatment effectiveness. The authors compared the effectiveness of Vonoprazan-based therapy versus Proton Pump Inhibitor (PPI)-based therapy for the eradication of *H. pylori* infection in treatment-naïve and treatment-experienced Egyptian patients. They found the results of eradication in P-CABs-based groups to be comparable to those of PPI-based groups, and *H. pylori* eradication regimens including P-CABs are tolerable with a low incidence of adverse events.

There are some problems:

1. In this study, the success rates of eradication treatment were lower for both first-line and second-line treated patients. Patients took their medicine with water 30 minutes before meals in the current study. The exact time of patients taking their medication may have a certain therapeutic effect. Better therapeutic effects might be achieved if patients take acid suppressants before meals and antibiotics after meals.
2. "The second follow-up visit was done 4 weeks after completing the treatment regimen to record the eradication results. Successful *H. pylori* eradication was defined as a negative *H. pylori* Stool Antigen test 4 weeks after treatment discontinuation."

The application of the *H. pylori* Stool Antigen test to evaluate the efficacy of eradication may result in some false positives. If tested 6-8 weeks after treatment, it is possible to reduce the false positive rate.

1. "A percentage of 50% or less among the *H. pylori* Egyptian population is believed to harbor "clarithromycin-resistant *H. pylori* strains," evidenced by culture techniques.

"Eradication rates in clarithromycin-resistant infections: vonoprazan triple therapy 65.8%, dual therapy 69.6%, vs. lansoprazole triple therapy 31.9%." in "Vonoprazan Triple and Dual Therapy for *Helicobacter pylori* Infection in the United States and Europe: Randomized Clinical Trial."

"High dropout rates and low treatment adherence in the experienced groups in the current study could be attributed to polypharmacy, which may cause noncompliance in comparison with the naïve groups."

For countries and regions where clarithromycin-resistant *H. pylori* strains are abundant and when bismuth cannot be obtained, we can consider the use of P-CABs-based dual therapy for the treatment of *H. pylori* infection.