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EDITORIAL

Helicobacter pylori: still a mystery for gastroenterologists

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ABSTRACT

The discovery of the spiral *Helicobacter pylori* (*H. pylori*) as the cause of most cases of acute gastritis, leading to chronic gastric ulcers, heralded a new era that promised efficient management of this age-old disease. However, with the passage of time, spurred by injudicious medical practices, complex issues have arisen in the seemingly simple scenario of bacterial elimination from the gastric mucosa. Some of these are discussed in this editorial.

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INTRODUCTION

Helicobacter pylori has mysteriously been the culprit for a number of gastrointestinal disorders.[1] Apparently it is a bug that is not supposed to cause much harm. Be it troublesome gastritis, gastric carcinoma, peptic ulcer disease and even lymphoma, all are complications of *H. pylori*. The effort to diagnose it at an early stage does not look relentless.[2] There is a trend for giving empirical acid suppression therapies for a very long time with no dietary measures and poor drug compliance adding to the misery of patients. The prolonged use of proton pump inhibitors is not without hazards as it can lead to atrophic gastritis, pernicious anaemia and even dreadful cancer.

Injudicious use of antibiotics for its eradication is matter of enormous concern for all the clinicians including microbiologists. The old and well known used triple therapy effectiveness in eradication is still effective but at the same time increased Clarithromycin resistance in patients has raised alarm bells.[3] Prolonged persistence of antibiotic resistant strains of *H. pylori* in the stomach poses a great emerging challenge to the eradication of *H. pylori* infection. For this reason, the WHO has categorized it under 12 antibiotic-resistant "priority pathogens" included in its "high priority" list. Current reports indicate enhanced and horrifying levels of resistance for the common antibiotic drugs in use (Clarithromycin 17.2%, Metronidazole 26.7%, Amoxicillin 11.2%, Levofloxacin 6.2%, and Tetracycline 5.9%).

There are novel therapies like salvage, hybrid, Levofloxacin, Vonoprazan based regimens that need to be used cautiously in the 21st century.[3] According to one study the use of Clarithromycin based treatment for eradication triples the risk of myocardial infarction and cardiac arrhythmias and that is why the FDA has strictly warned against the use of Clarithromycin and Quinolones in patients with heart disease for reducing the incidence of complications.[3] Therefore instead of going for all out treatment of *H Pylori*, a more individualized and targeted result-oriented approach is needed.

The appropriate tests for diagnosing *Helicobacter pylori* do exist but are rarely advised. We still a see large number of patients being advised the blood tests with a very poor sensitivity.[4] Gold standard tests like urease breath test and stool antigen test for *H. pylori* with excellent sensitivity are not used by the general practitioners who are more concerned with alleviation of symptoms without realising the need for treating the root cause.[4] Even after being advised, the tests may give false positive or negative results. The reason is that the test is sent immediately after finishing the eradication therapy. This can be due to not following the standard practice of stopping the proton pump inhibitors and antibiotics prior to testing or even confirming eradication. The European Society for Medical Oncology does recommend testing and treating *H. pylori* in all patients with gastric maltoma.[5]

There are a large number of patients who develop upper gastrointestinal bleeding. While majority of physicians believe that indiscriminate use of non-steroidal anti-inflammatory drugs can cause peptic ulcer, most of the patients test positively for *Helicobacter pylori*. The gastroenterologist do test and treat *H. pylori* resulting in improved outcomes, but the dilemma is that rebleeding chances are there even after successful haemostasis when there is delayed treatment. This a good enough reason for testing for persistent infections and promptly retreating to reduce the risk of complications.[6]

While we do see some light and a ray of hope at the end of the tunnel with novel antibiotics regimen, it is essential and of paramount importance not to be carried away. There has been extensive research on the role of probiotics in *Helicobacter* eradication as well. Follow-up testing and confirmation of eradication is recommended and is the way forward. When should we test and treat definitely needs good clinical experience and sound clinical judgement but when there is a will, there is a way, resulting in better satisfaction of patients.[7]

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