

Quadruple and phytomedicine-based therapies in *Helicobacter pylori* infection: A comparative randomized trial

Hafiz Muhammad Asif¹, Syed Faisal Zaidi², Toshiro Sugiyama², Naveed Akhtar³ and Khan Usmanghani⁴

¹The University of Poonch, Pakistan

²University of Toyama, Japan

³The Islamia University of Bahawalpur, Pakistan

⁴Hamdard University, Pakistan

Purpose of the study: *Helicobacter pylori* are strongly associated to the development of gastrointestinal disorders. Emerging antibiotic resistance and poor patient compliance of modern therapies has created a major problem particularly in developing countries. Clinical trials were conducted to see the efficacy of current quadruple and phytomedicine-based therapies for the eradication of *H. pylori* infection and relief in its associated symptoms in high risk areas of Pakistan.

Methods: 176 *H. pylori* positive patients (males: 97, females: 79, mean age: 36±12 year, range: 18-55) were enrolled in the study and divided into two groups according to treatment regimens. Quadruple therapy (omeprazole; 20 mg capsule, amoxicillin; 500 mg, metronidazole; 500 mg and bismuth compound; 400 mg) was prescribed for 7 days and alternate phytomedicine-based quadruple formulation (pylorex plus 500 mg tablet contains *Curcuma longa* rhizomes; 150 mg, *Mallotus phillipensis* fruits; 150 mg, *Glycyrrhiza glabra* roots; 100 mg and *Zingiber officinale* rhizomes; 100 mg) was prescribed for 15 days. C¹³-urea breath and stool antigen (HpSAG) tests were performed at baseline and after 1 month of treatment. The details of relevant gastrointestinal symptoms (abdominal pain, regurgitation, heart burning, indigestion and flatulence, nausea, vomiting and belching) were filled for each patient, using a special scoring system (absent: 0, mild: 1, moderate: 2 and severe: 3).

Results: *H. pylori* were eradicated in 56 patients (62.22%) out of 90 patients by quadruple allopathic therapy and in 48 patients (55.81%) out of 86 patients by Pylorex plus therapy. Pylorex plus therapy has comparable eradication rate to quadruple therapy. However, Pylorex plus therapy has significantly released GI symptoms in *H. pylori* eradicated patients from baseline (T0: median 8, IQR: 6-10) to 2nd week (T2: median 3, IQR: 2-5) and one month after treatment (T4: median 3, IQR: 2-6) and in non-eradicated patients from baseline (T0: median 9, IQR: 7-10) to 2nd week (T2: median 3, IQR: 2-5) and one month after treatment (T4: median 4, IQR: 2-6). Whereas, quadruple therapy have only relieved GI symptom in *H. pylori* eradicated patients from baseline (T0: median 9, IQR: 6-10) to 2nd week (T2: median 4, IQR: 3-6) and one month after treatment (T4: median 4, IQR: 3-7), but lesser improvement in non-eradicated patients from baseline (T0: median 9, IQR: 6-10) to 2nd week (T2: median 6, IQR: 4-8) and one month after treatment (T4: median 8, IQR: 5-10).

Conclusion: Current quadruple and alternate therapies yielded poor eradication rates (<70%), but the later produced marked symptomatic improvement in both *H. pylori*-eradicated and non-eradicated patients, pointing the potential use in *H. pylori*-positive and negative functional dyspepsia patients.

Biography

Hafiz Muhammad Asif has completed his Ph.D. in the field of Eastern Medicine (Clinical Methods & Therapeutics) from Hamdard University, Karachi, Pakistan. He has published more than 50 papers in National and International journals. He has attended many national and international conferences and seminars and presented oral and poster presentations. He is the member of many national and international academic and learning bodies. He is working as Deputy Director, QEC, The University of Poonch, Rawalakot as well as is a Lecturer in Faculty of Health & Medical Sciences, Department of Eastern Medicine & Surgery, The University of Poonch, Rawalakot.

doctor.asif@yahoo.com