

The Definitive Eradication of *Helicobacter pylori* from the Colon

Abdullah M Nasrat^{1*}, Salwa AM Nasrat², Randa M Nasrat³ and Mohammad M Nasrat³

¹Department of Surgery, Balghsoon Clinic, Jeddah, KSA

²Department of Physical Therapy, Cardiac Surgery Academy, Cairo, Egypt

³Department of Internal Medicine, Helwan General Hospital, Helwan, Egypt

*Corresponding author: Abdullah M Nasrat, Department of Surgery, Balghsoon Clinic, Jeddah, PO Box 5261 KSA-21573, Tel: +966 (012) 667 3645; E-mail: abdullahalnasrat@hotmail.com

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Abstract

The study aimed at the assessment of *Helicobacter pylori* eradication from the colon by a natural measure.

H. pylori colonized the stomach since an immemorial time as if both the stomach wall and the bacterium used to live together in peace harmless to each other.

H. pylori could migrate or get forced to migrate to colon where it will continue to produce ammonia for a reason or no reason, unopposed or buffered by any acidity, leading to accumulation of ammonia in profuse toxic amounts that could lead adverse toxic effects in the body in predisposed disadvantaged population. *H. pylori* eradication from the colon in this situation should be therefore a necessary attempt.

22 middle-aged patients with recurrent colonic troubles were included in this study according to their clinical symptoms and laboratory testing. Patients who were found positive for *H. pylori* fecal antigen were given a potent natural purgative.

20 patients showed positive colonic *H. pylori* strains, 19 patients were turned negative after employment of the potent natural senna leaves purge.

The natural senna leaves purge is an effective potent and safe measure for eradication of colonic *H. pylori* strains.

Keywords: *Helicobacter pylori*; Colon

Introduction

Helicobacter pylori represents one of the most common and medically prominent challenges worldwide. About 50% of adults in the developed and 80-90% in the developing countries are estimated to be affected by *H. pylori* [1]. Infection with *H. pylori* is typically life-long unless treated. It has got a clear age-related prevalence [2]. In children, existence of *H. pylori* starts trans-familial during early childhood, and *H. pylori* strain is often identical with that of parents. Interestingly, children maintain the same strain genotype even after moving to a different environment [3].

H. pylori resides and colonizes under the layer of mucus overlying gastric mucosa; colonization rates increase with age that could reach 50% in an asymptomatic adult over 50 years of age. *H. pylori* is existing mainly in the stomach since an immemorial time but it can exist and reside in many other sites in the body such as dental plaques, tonsils, adenoids, middle ear, nasal sinuses, liver, gall bladder and the colon [3,4].

H. pylori can be detected by a variety of methods; the simplest and least expensive method is serology. Positive serology does not distinguish between active and chronic infection, and is less specific as

compared to other methods like histopathology, culture, *H. pylori* faecal antigen or urea breath test [4,5].

The efficacy of *H. pylori* eradication treatment for non-ulcer dyspepsia is controversial, different randomized controlled trails have given conflicting results. Overall, *H. pylori* eradication treatment for non-ulcer dyspepsia had no significant effect on quality of life compared with placebo [6-8]. Further studies comparing between *H. pylori* treatment and eradication for non-ulcer dyspepsia showed improvement of dyspeptic symptoms after treatment or eradication with little differences between them [9].

Observational studies have proposed a protective role of *H. pylori* against the development of gastro-oesophageal reflux disease, and suggested that *H. pylori* eradication treatment may increase the incidence of reflux symptoms. It was observed that the prevalence of *H. pylori* has been decreasing in developed countries, while the prevalence of gastro-oesophageal reflux disease and oesophageal adenocarcinoma have been increasing [10-12]. The appropriate length of *H. pylori* treatment remains also controversial and bacterial resistance and treatment failure would add further controversies concerning the feasibility of eradication [13-15].

Aim

Assessment of the potency of a natural purgative measure on *H. pylori* eradication from the colon.

Design and Setting

Prospective study done in Balghsoon Clinics in Jeddah/Saudi Arabia during Oct. 2011-May 2013.

Patients and Methods

22 middle-aged patients (33-51 years old) with recurrent colonic troubles and frank dyspeptic symptoms were included in the study without any social or class selection. The following dyspeptic symptoms were considered; upper abdominal pain, hyperacidity, abdominal distension and constipation. 20 of them (90.9%) were found positive for colonic *H. pylori* strains by using *H. pylori* fecal antigen test. The potent natural senna leaves purge was employed for them, two of them needed revision of the purge after three days in order to undergo diarrhea.

Results

A total of 19 patients (95%) turned negative for colonic *H. pylori* strains.

Ethical Considerations

An informed signed consent was taken from all patients, they were made aware about safety of the natural senna purge and they were free to quit the study whenever they like. All patients were allowed to lead their routine style of life except restriction of outside-home meals. The research proposal was approved and the study followed the rules of the Research Ethics Committee of King Faisal Specialized Hospital and Research Center in Jeddah, Saudi Arabia.

Discussion

H. pylori colonized the stomach since an immemorial time as if *H. pylori* is a natural bacterium living in peace together with the stomach wall harmless to each other. The organism resides and colonizes under the layer of mucus overlying gastric mucosa; colonization rates increase with age that could reach 50% in an asymptomatic adult over 50 years of age [3].

H. pylori as all natural bacteria in the gut may change behavior with time due to different reasons such as change of food habits or types of food. *H. pylori* could migrate or get forced to migrate to the colon where it could become a poison itself or becomes a source of poison by producing profuse toxic amounts of ammonia. It has been reported in literature that a possible role of autoimmunity induced by extra-gastric *H. pylori* strains cannot be excluded. Different reports in literature have confirmed the association of cytotoxin-associated gene A (*cagA*) positive *H. pylori* strains with many medical problems, and emphasized that *cagA* of *H. pylori* encodes a highly immunogenic and virulence-associated protein; the presence of this virulent gene in the body could affect the clinical outcome in many patients. *H. pylori* in the colon will continue producing ammonia for a reason or no reason, unopposed or buffered by any acidity, leading to accumulation of ammonia in profuse toxic amounts that could lead adverse toxic effects in the body in predisposed disadvantaged population. *H. pylori*

eradication from the colon in this situation should be therefore a necessary attempt [3,16,17].

Migration of *H. pylori* to the colon is a fact that has been reported in literature [3,18,19]. Although the eradication regimens efficiently eradicate *H. pylori* from the stomach; [20] it was suggested that the antibiotic violence could have forced the stomach bacterium to migrate to the colon rather than eradicating it from the stomach. This suggestion is supported by the finding that pseudo-membranous toxic colitis and toxic megacolon have developed after eradication of *H. pylori* from the stomach by antibiotic therapy [21,22]. Excess ammonia in the colon is toxic and smooth muscle spastic leading to multiple colonic spasms; a colonic re-absorptive error could establish leading to excessive fluid and salt retention in the body with subsequent burden on blood pressure, heart rate and other effects on heart and circulation [16].

Antibiotics are seldom effective against extra-gastric *H. pylori* strains [23]. Existence of *H. pylori* in the colon is typically life-long unless eradicated, [24] and there is no proven way to eradicate it from the colon rather than the senna purge [16,19,25]. It is believed that reduction of *H. pylori* colonization below its pathologic level (50%) is sufficient to protect from complications [3,19]. The natural senna leaves extract purge is valuable and is the measure of choice in eradication of colonic *H. pylori* strains; it is effective as it kills and expels most of the colonic *H. pylori* strains (95% in this study). In this study and previous scientific efforts, addition of three times dilutions of the senna leaves extract to solid culture media was found to be directly lethal to *H. pylori* colonization [16,25].

Conclusion

The senna leaves purge should be considered a safe and decisive measure for eradication of colonic *H. pylori* strains; if further re-assessment is required for its wider practical application, it should be done without delay in order to employ it for control of disease spread related to extra-gastric *H. pylori* strains.

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