

A Comparison of the Effectiveness of Levofloxacin versus Clarithromycin as first line therapy in the eradication of Helicobacter pylori infection: A randomized clinical trial

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Abstract

Background: Helicobacter pylori (*H. pylori*) is the main known cause of gastritis, gastroduodenal ulcer disease, and gastric cancer. Eradication of *H. pylori* can be an effective method of treatment for peptic ulcer disease and mucosa-associated lymphoid tissue lymphoma. It is especially important for reducing the development of new-onset gastric cancer as well as secondary gastric cancer after endoscopic treatment. This study aimed to compare the effectiveness of Levofloxacin versus Clarithromycin in the eradication of *H. pylori*.

Materials and Methods: This randomized clinical trial study was conducted on 170 cases with *H. pylori* infection in Afzalipour Hospital, Kerman, Iran. They randomly allocated to two groups. 'A' group was treated with Clarithromycin (500 mg twice a day), Pantoprazole (40 mg twice a day) and Amoxicillin (1 gr twice a day) for 14 days. 'B' group was treated with Levofloxacin (250 mg twice a day), Pantoprazole (40 mg twice a day) and Amoxicillin (1 gr twice a day) for 14 days for first line therapy in both groups. Stool *H. pylori* antigen test was performed on them after one month of the end of treatment. To analyze the data, descriptive and analytical methods and SPSS software version 22 were used.

Results: The study cases are comprised of 170 individuals (52.35% female). The average age of cases in 'A' and 'B' groups was 42 ± 11.88 and 41 ± 13.75 years, respectively. *H. pylori* eradication was successful in 61.1% of 'A' group and 92.9% of 'B' group showing a significant difference ($P=0.037$). Drug complications were reported in 7.1% of 'A' group and 4.7% of 'B' group which have not shown a significant difference between the two groups ($P=0.771$). The most common drug complication in both groups was abdominal pain (2.3%).

Conclusion: The results of this study indicated that the Levofloxacin-containing regimen was more effective in eradicating *H. pylori* than the standard Clarithromycin triple therapy.

Keywords: Clarithromycin, Helicobacter pylori, Eradication, Levofloxacin