

ABSTRACT

BACKGROUND:

Once the diagnosis of *Helicobacter pylori* is confirmed, treatment requires at least two antibiotics and an acid inhibitor for a minimum of seven days. Unfortunately, treatment failures are being frequently reported. Treatment regimens that include sequential administration of antibiotics with acid inhibitors have been developed to try and increase the rate of eradication.

OBJECTIVE:

To determine the effectiveness of a novel 10-day sequential therapy compared with the standard 10-day triple therapy for treatment of *H. pylori* infection in children.

METHODS:

A double-blinded, randomised, controlled trial was conducted. Children under the age of 16 years with recurrent abdominal pain associated with dyspepsia and diagnosed with *H. pylori* by histology were randomly allocated either to a 10-day sequential treatment regimen or to a 10-day conventional triple therapy. Analysis of the outcome of this study was based on clinical improvement and confirmed *H. pylori* eradication based on stool *H. pylori* antigen detection and/or repeat endoscopy.

RESULTS:

Of the 71 patients included in the analysis, 45 (63.4%) were given the 10-day conventional treatment while 26 (36.6%) received the 10-day sequential treatment. There was no difference in clinical improvement after treatment in the two therapies. However, there was a significant difference in the eradication of *H. pylori* between the conventional v. sequential regimens (48.8% v. 84.6%, respectively; $p=0.02$, odds ratio 0.19).

CONCLUSION:

The sequential treatment had a significantly higher *H. pylori* eradication rate than the conventional treatment.