Efficacy of N-acetyl cysteine (NAC) in dyspeptic patients and negative Helicobacter pylori infection

Abstract

Background & Objectives: Functional dyspepsia is a common complaint with symptoms like bloating or epigastric pain, early satiation, heart burn and nausea in the absence of underlying organic or metabolic disease. N-acetyl cysteine (NAC) has multiple potential effects and has been used for treatment of different diseases. In this study we evaluated the efficacy of NAC in improving the dyspepsia symptoms in dyspeptic patients with H. pylori negative results.

Methods: In this randomized clinical trial, 85 patients with functional dyspepsia without H. pylori infection underwent treatment with proton pump inhibitor (PPI) (pantoprazole 40 mg) daily with (n=41) or without (n=44) NAC 600 mg twice a day for eight weeks. Patients' clinical symptoms and change in the severity of dyspepsia symptoms were compared between groups.

Results: Common symptoms were epigastric pain and bloating. Intervention group compared to control group had significantly more cases with retrosternal burn and blotching and less early satiation. In both intervention and control groups dyspepsia severity was significantly reduced from 5.26±2.06 and 4.68±2.81 to 1.87±1.38 and 2.22±2.04, respectively ($p<0.001$). The percent of reduction in dyspepsia severity in intervention group was significantly higher than control group (-66.25±23.44% vs. -50.14±35.02%, $p=0.01$).

Conclusion: PPI is effective in the treatment of functional dyspepsia and NAC as an adjuvant is a safe treatment that could increase the response rate and treatment efficacy in these patients.

Keywords: Functional dyspepsia; PPI; NAC