Abstract

Introduction/aims: We hypothesized that a combination of an effervescent antacid and ranitidine could allow immediate and long-lasting increase intragastric acidity. Our aim was to determine the effect of the combined intake of both, of a low dose ranitidine (OTC) and 5g of antacid on gastric pH. Material and methods: Twenty healthy Helicobacter pylori negative volunteers were enrolled. The study consisted in a fasting 6-hour gastric pH-metric procedure performed in two different periods: baseline (1-hour before drug) and post-drug (5-hours) after oral administration of a single dose of ranitidine (75 mg) plus 5 g of a commercial composed alkaline (sodium bicarbonate, citric acid, sodium carbonate). Results: While two subjects did not complete the pH-metry analysis due to technical reasons, 18 volunteers were finally assessed. Baseline intragastric pH (1.3±0.1) (mean±SD) rose significantly after administration of the drug (mean pH value for the whole period: 5.1±0.3; p<0.00001). The pH increased after administration of the study combination and values higher than pH 3 and pH 4 were reached immediately (median time: 27 sec, range: 0- 189 and 54 sec, range 27-3,600 sec, respectively). Gastric pH was initially maintained above 4 for 23.0±5 minutes. The mean time lapsed with pH<4 during the post-drug period was 96±17 min (32% of the total time). Conclusion: Our study confirms the fast and persistent effect produced by the administration of a combination of antacid salts plus low dose of ranitidine. We suggest that the given combination could be effective, fast and safe for sporadic pyrosis or mild gastroesophageal reflux symptoms.

Keywords

Ranitidine, antacids, gastric acidity.